SPECIFICATIONS

FOR

J. C. PENNEY COMPANY - STORE NO. 570

ATHENS, GEORGIA

AECK ASSOCIATES,
ARCHITECTS

One Forty Peachtree,
Atlanta, Georgia

Job No. 912

Date: 2 NOVEMBER 1959

THE AMERICAN INSTITUTE OF ARCHITECTS

THE GENERAL CONDITIONS OF THE CONTRACT FOR THE CONSTRUCTION OF BUILDINGS

The Standard Form of General Conditions, 1958 Edition, has received the approval of THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA; THE CONTRACTING PLASTERERS' AND LATHERS' INTERNATIONAL ASSOCIATION; COUNCIL OF MECHANICAL SPECIALTY CONTRACTING INDUSTRIES, INC.; THE NATIONAL BUILDING GRANITE QUARRIES ASSOCIATION, INC.; THE NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION; THE PAINTING AND DECORATING CONTRACTORS OF AMERICA; AND THE PRODUCERS' COUNCIL, INC.*

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* Formal approval, which has been given previous editions, has not yet been received from all of these organizations.

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ARTICLE 1

DEFINITIONS

a) The Contract Documents consist of the Agreement, the General Conditions of the Contract, the Supplementary General Conditions, the Drawings and Specifications, including all modifications thereof incorporated in the documents before their execution. These form the Contract.

b) The Owner, the Contractor and the Architect are those mentioned as such in the Agreement. They are treated throughout the Contract Documents as if each were of the singular number and masculine gender.

c) The term Subcontractor, as employed herein, includes only those having a direct contract with the Contractor and it includes one who furnishes material worked to a special design according to the plans or specifications of this work, but does not include one who merely furnishes material not so worked.

d) Written notice shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered mail to the last business address known to him who gives the notice.

e) The term "work" of the Contractor or Subcontractor includes labor or materials or both.

f) All time limits stated in the Contract Documents are of the essence of the Contract.

g) The law of the place of building shall govern the construction of this Contract.

ARTICLE 2

EXECUTION, CORRELATION AND INTENT OF DOCUMENTS

The Contract Documents shall be signed in duplicate by the Owner and the Contractor. In case either the Owner or Contractor or both fail to sign the General Conditions, Drawings or Specifications, the Architect shall identify them.

The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work described in words which so applied have a well-known technical or trade meaning shall be held to refer to such recognized standards.

It is not intended, that work not covered under any heading, section, branch, class or trade of the specifications, shall be supplied unless it is shown on drawings or is reasonably inferable therefrom as being necessary to produce the intended results.

ARTICLE 3

DETAIL DRAWINGS AND INSTRUCTIONS

The Architect shall furnish with reasonable promptness, additional instructions by means of drawings or otherwise, necessary for the proper execution of the work. All such drawings and instructions shall be consistent with the Contract Documents, true developments thereof, and reasonably inferable therefrom.

The work shall be executed in conformity therewith and the Contractor shall do no work without proper drawings and instructions.

Immediately after being awarded the contract the Contractor shall prepare a estimated Progress Schedule and submit same for Architect's approval. It shall indicate the dates for the starting and completion of the various stages of construction.

ARTICLE 4

COPIES FURNISHED

Unless otherwise provided in the Contract Documents the Contractor will be furnished, free of charge, all copies of drawings and specifications reasonably necessary for the execution of the work.

ARTICLE 5

SHOP DRAWINGS

The Contractor shall check and verify all field measurements and shall submit with such promptness as to cause no delay in his own work or in that of any other Contractor, three copies, checked and approved by him, of all shop or setting drawings and schedules required for the work of the various trades, and the Architect shall pass upon them with reasonable promptness, making desired corrections, including all necessary corrections relating to design and artistic effect. The Contractor shall make any corrections required by the Architect, file with him two corrected copies and furnish such other copies as may be needed. The Architect's approval of such drawings or schedules shall not relieve the Contractor from responsibility for deviations from drawings or specifications, unless he has in writing called the Architect's attention to such deviations at the time of submission, and secured his written approval, nor shall it relieve him from responsibility for errors in shop drawings or schedules.

ARTICLE 6

DRAWINGS AND SPECIFICATIONS ON THE WORK

The Contractor shall keep one copy of all drawings and specifications on the work, in good order, available to the Architect and to his representative.

ARTICLE 7

OWNERSHIP OF DRAWINGS

All drawings, specifications and copies thereof furnished by the Architect are his property. They are not to be used on other work, and, with the exception of the signed Contract set, are to be returned to him on request, at the completion of the work.

ARTICLE 8

SAMPLES

The Contractor shall furnish for approval all samples as directed. The work shall be in accordance with approved samples.

ARTICLE 9

MATERIALS, APPLIANCES, EMPLOYEES

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work.

Unless otherwise specified all materials shall be new and both workmanship and materials shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times enforce strict discipline and good order among his employees, and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

ARTICLE 10

ROYALTIES AND PATENTS

The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Owner harmless from loss on account thereof, except that the Owner shall be responsible for all such loss when a particular process or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has information that the process or article specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Architect or Owner.

ARTICLE 11

SURVEYS, PERMITS, LAWS AND REGULATIONS

The Owner shall furnish all surveys unless otherwise specified.

Permits and licenses necessary for the prosecution of the work shall be secured and paid for by the Contractor. Easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Owner, unless otherwise specified.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the drawings and specifications are at variance therewith, he shall promptly notify the Architect in writing and any necessary changes shall be adjusted as provided in the Contract for changes in the work. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Architect, he shall bear all costs arising therefrom.

Wherever the law of the place of building requires a sales, consumer, use, or other similar tax, the Contractor shall pay such tax.

ARTICLE 12

PROTECTION OF WORK AND PROPERTY

The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect the Owner's property from injury or loss arising in connection with this Contract. He shall make good any such damage, injury or loss, except such as may be directly due to errors in the Contract Documents or caused by agents or employees of the Owner, or due to causes beyond the Contractor's control and not to his fault or negligence. He shall adequately protect adjacent property as provided by law and the Contract Documents.

The Contractor shall take all necessary precautions for the safety of employees on the work, and shall comply with all applicable provisions of Federal, State, and Municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the premises where the work is being performed. He shall erect and properly maintain at all times, as required by the conditions and progress of the work, all necessary safeguards for the protection of workmen and the public and shall post danger signs warning against the hazards created by such features of construction as protruding nails, hoists, well holes, elevator hatchways, scaffolding, window openings, stairways and falling materials; and he shall designate a responsible member of his organization on the work, whose duty shall be the prevention of accidents. The name and position of any person so designated shall be reported to the Architect by the Contractor.

In an emergency affecting the safety of life or of the work or of adjoining property, the Contractor, without special instruction or authorization from the Architect or Owner, is hereby permitted to act, at his discretion, to prevent such threatened loss or injury, and he shall so act, without appeal, if so authorized or instructed. Any compensation, claimed by the Contractor on account of emergency work, shall be determined by agreement or Arbitration.

ARTICLE 13

INSPECTION OF WORK

The Architect and his representatives shall at all times have access to the work wherever it is in preparation or progress and the Contractor shall provide proper facilities for such access and for inspection.

If the specifications, the Architect's instructions, laws, ordinances or any public authority require any work to be specially tested or approved, the Contractor shall give the Architect timely notice of its readiness for inspection, and if the inspection is by another authority than

the Architect, of the date fixed for such inspection, required certificates of inspection being secured by the Contractor. Inspections by the Architect shall be promptly made, and where practicable at the source of supply. If any work should be covered up without approval or consent of the Architect, it must, if required by the Architect, be uncovered for examination at the Contractor's expense.

Re-examination of questioned work may be ordered by the Architect and if so ordered the work must be uncovered by the Contractor. If such work be found in accordance with the Contract Documents the Owner shall pay the cost of re-examination and replacement. If such work be found not in accordance with the Contract Documents the Contractor shall pay such cost, unless it be found that the defect in the work was caused by a Contractor employed as provided in Article 35, and in that event the Owner shall pay such cost.

ARTICLE 14

SUPERINTENDENCE: SUPERVISION

The Contractor shall keep on his work, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Architect. The superintendent shall not be changed except with the consent of the Architect, unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ. The superintendent shall represent the Contractor in his absence and all directions given to him shall be as binding as if given to the Contractor. Important directions shall be confirmed in writing to the Contractor. Other directions shall be so confirmed on written request in each case.

The Contractor shall give efficient supervision to the work, using his best skill and attention. He shall carefully study and compare all drawings, specifications and other instructions and shall at once report to the Architect any error, inconsistency or omission which he may discover, but he shall not be liable to the Owner for any damage resulting from any errors or deficiencies in the contract documents or other instructions by the architect.

ARTICLE 15

CHANGES IN THE WORK

The Owner, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the work, the Contract Sum being adjusted accordingly. All such work shall be executed under the conditions of the original contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.

In giving instructions, the Architect shall have authority to make minor changes in the work, not involving extra cost, and not inconsistent with the purposes of the building, but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order from the Owner signed or countersigned by the Architect, or a written order from the Architect stating that the Owner has authorized the extra work or change, and no claim for an addition to the contract sum shall be valid unless so ordered.

The value of any such extra work or change shall be determined in one or more of the following ways:

a) By estimate and acceptance in a lump sum.

b) By unit prices named in the contract or subsequently agreed upon.

c) By cost and percentage or by cost and a fixed fee.

If none of the above methods is agreed upon, the Contractor, provided he receives an order as above, shall proceed with the work. In such case and also under case (c), he shall keep and present in such form as the Architect may direct, a correct account of the cost, together with vouchers. In any case, the Architect shall certify to the amount, including reasonable allowance for overhead and profit, due to the Contractor. Pending final determination of value, payments on account of changes shall be made on the Architect's certificate.

Should conditions encountered below the surface of the ground be at variance with the conditions indicated by the drawings and specifications the contract sum shall be equitably adjusted upon claim by either party made within a reasonable time after the first observance of the conditions.

ARTICLE 16

CLAIMS FOR EXTRA COST

If the Contractor claims that any instructions by drawings or otherwise involve extra cost under this contract, he shall give the Architect written notice thereof within a reasonable time after the receipt of such instructions, and in any event before proceeding to execute the work, except in emergency endangering life or property, and the procedure shall then be as provided for changes in the work. No such claim shall be valid unless so made.

ARTICLE 17

DEDUCTIONS FOR UNCORRECTED WORK

If the Architect and Owner deem it inexpedient to correct work injured or done not in accordance with the Contract, an equitable deduction from the contract price shall be made therefor.

ARTICLE 18

DELAYS AND EXTENSION OF TIME

If the Contractor be delayed at any time in the progress of the work by any act or neglect of the Owner or the Architect, or of any employee of either, or by any separate Contractor employed by the Owner, or by changes ordered in the work, or by strikes, lockouts, fire, unusual delay in transportation, unavoidable casualties or any causes beyond the Contractor's control, or by delay authorized by the Architect pending arbitration, or by any cause which the Architect shall decide to justify the delay, then the time of completion shall be extended for such reasonable time as the Architect may decide.

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No such extension shall be made for delay occurring more than seven days before claim therefor is made in writing to the Architect. In the case of a continuing cause of delay, only one claim is necessary.

If no schedule or agreement stating the dates upon which drawings shall be furnished is made, then no claim for delay shall be allowed on account of failure to furnish drawings until two weeks after demand for such drawings and not then unless such claim be reasonable.

This article does not exclude the recovery of damages for delay by either party under other provisions in the contract documents.

ARTICLE 19

CORRECTION OF WORK BEFORE FINAL PAYMENT

The Contractor shall promptly remove from the premises all work condemned by the Architect as failing to conform to the Contract, whether incorporated or not, and the Contractor shall promptly replace and re-execute his own work in accordance with the Contract and without expense to the Owner and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

If the Contractor does not remove such condemned work within a reasonable time, fixed by written notice, the Owner may remove it and may store the material at the expense of the Contractor. If the Contractor does not pay the expenses of such removal within ten days' time thereafter, the Owner may, upon ten days' written notice, sell such materials at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs and expenses that should have been borne by the Contractor.

ARTICLE 20

CORRECTION OF WORK AFTER FINAL PAYMENT

The Contractor shall remedy any defects due to faulty materials or workmanship and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of final payment, or from the date of the Owner's substantial usage or occupancy of the project, whichever is earlier, and in accordance with the terms of any special guarantees provided in the contract. Neither the foregoing nor any provision in the contract documents, nor any special guarantee time limit, shall be held to limit the Contractor's liability for defects, to less than the legal limit of liability in accordance with the law of the place of building. The Owner shall give notice of observed defects with reasonable promptness. All questions arising under this Article shall be decided by the Architect subject to arbitration, notwithstanding final payment.

ARTICLE 21

THE OWNER'S RIGHT TO DO WORK

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this contract, the Owner, after three days' written notice to the Contractor may, without prejudice to any other remedy he may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor, provided, however, that the Architect shall approve both such action and the amount charged to the Contractor.

ARTICLE 22

OWNER'S RIGHT TO TERMINATE CONTRACT

If the Contractor should be adjudged a bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if he should fail to make prompt payment to subcontractors or for material or labor, or persistently disregard laws, ordinances or the instructions of the Architect, or otherwise be guilty of a substantial violation of any provision of the contract, then the Owner, upon the certificate of the Architect that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor, and his surety if any, seven days' written notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools and appliances thereon and finish the work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price shall exceed the expense of finishing the work including compensation for additional architectural, managerial and administrative services, such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the Owner. The expense incurred by the Owner as herein provided, and the damage incurred through the Contractor's default, shall be certified by the Architect.

ARTICLE 23

THE CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

If the work should be stopped under an order of any court, or other public authority, for a period of thirty days, through no act or fault of the Contractor or of anyone employed by him, then the Contractor may, upon seven days' written notice to the Owner and the Architect, terminate this Contract and recover from the Owner payment for all work executed and any proven loss sustained upon any plant or materials and reasonable profit and damages.

Should the Architect fail to issue any certificate for payment, through no fault of the Contractor, within seven days after the Contractor's formal request for payment or if the Owner should fail to pay to the Contractor within seven days of its maturity and presenta-

tion, any sum certified by the Architect or awarded by arbitrators, then the Contractor may, upon seven days' written notice to the Owner and the Architect, stop the work or terminate this Contract as set out in the preceding paragraph.

ARTICLE 24

APPLICATIONS FOR PAYMENTS

At least ten days before each payment falls due, the Contractor shall submit to the Architect an itemized application for payment, supported to the extent required by the Architect by receipts or other vouchers, showing payments for materials and labor, payments to subcontractors and such other evidence of the Contractor's right to payment as the Architect may direct.

If payments are made on valuation of work done, the Contractor shall, before the first application, submit to the Architect a schedule of values of the various parts of the work, including quantities, aggregating the total sum of the contract, divided so as to facilitate payments to subcontractors in accordance with Article 37(e), made out in such form as the Architect and the Contractor may agree upon, and, if required, supported by such evidence as to its correctness as the Architect may direct. This schedule, when approved by the Architect, shall be used as a basis for certificates for payment, unless it be found to be in error. In applying for payments, the Contractor shall submit a statement based upon this schedule.

If payments are made on account of materials not incorporated in the work but delivered and suitably stored at the site, or at some other location agreed upon in writing, such payments shall be conditioned upon submission by the Contractor of bills of sale or such other procedure as will establish the Owner's title to such material or otherwise adequately protect the Owner's interest including applicable insurance.

ARTICLE 25

CERTIFICATES FOR PAYMENTS

If the Contractor has made application for payment as above, the Architect shall, not later than the date when each payment falls due, issue a certificate for payment to the Contractor for such amount as he decides to be properly due, or state in writing his reasons for withholding a certificate.

No certificate issued nor payment made to the Contractor, nor partial or entire use or occupancy of the work by the Owner, shall be an acceptance of any work or materials not in accordance with this contract. The making and acceptance of the final payment shall constitute a waiver of all claims by the Owner, other than those arising from unsettled liens, from faulty work appearing after final payment or from requirement of drawings or specifications, and of all claims by the Contractor, except those previously made and still unsettled.

Should the Owner fail to pay the sum named in any certificate for payment issued by the Architect or in any award by arbitration, upon demand when due, the Contractor shall receive, in addition to the sum named in the certificate, interest thereon at the legal rate in force at the place of building.

ARTICLE 26

PAYMENTS WITHHELD

The Architect may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate to such extent as may be necessary to protect the Owner from loss on account of:

a) Defective work not remedied.

b) Claims filed or reasonable evidence indicating probable filing of claims.

c) Failure of the Contractor to make payments properly to subcontractors or for material or labor.

d) A reasonable doubt that the contract can be completed for the balance then unpaid.

e) Damage to another Contractor.

When the above grounds are removed payment shall be made for amounts withheld because of them.

ARTICLE 27

CONTRACTOR'S LIABILITY INSURANCE

The Contractor shall maintain such insurance as will protect him from claims under workmen's compensation acts and other employee benefits from claims for damages because of bodily injury, including death, and from claims for damages to property which may arise both out of and during operations under this Contract, whether such operations be by himself or by any subcontractor or anyone directly or indirectly employed by either of them. This insurance shall be written for not less than any limits of liability specified as part of this Contract. Certificates of such insurance shall be filed with the Owner and Architect.

ARTICLE 28

OWNER'S LIABILITY INSURANCE

The Owner shall be responsible for and at his option may maintain such insurance as will protect him from his contingent liability to others for damages because of bodily injury, including death, which may arise from operations under this contract, and any other liability for damages which the Contractor is required to insure under any provision of this contract.

ARTICLE 29

FIRE INSURANCE WITH EXTENDED COVERAGE

Unless otherwise provided, the Owner shall effect and maintain fire insurance with extended coverage upon the entire structure on which the work of this contract is to be done to one hundred per cent of the insurable

value thereof, including items of labor and materials connected therewith whether in or adjacent to the structure insured, materials in place or to be used as part of the permanent construction including surplus materials, shanties, protective fences, bridges, temporary structures, miscellaneous materials and supplies incident to the work, and such scaffoldings, stagings, towers, forms, and equipment as are not owned or rented by the contractor, the cost of which is included in the cost of the work. EXCLUSIONS: This insurance does not cover any tools owned by mechanics, any tools, equipment, scaffolding, staging, towers, and forms owned or rented by the Contractor, the capital value of which is not included in the cost of the work, or any cook shanties, bunk houses or other structures erected for housing the workmen. The loss, if any, is to be made adjustable with and payable to the Owner as Trustee for the insureds and contractors and subcontractors as their interests may appear, except in such cases as may require payment of all or a proportion of said insurance to be made to a mortgagee as his interests may appear.

Certificates of such insurance shall be filed with the Contractor if he so requires. If the Owner fails to effect or maintain insurance as above and so notifies the Contractor, the Contractor may insure his own interests and that of the subcontractors and charge the cost thereof to the Owner. If the Contractor is damaged by failure of the Owner to maintain such insurance or to so notify the Contractor, he may recover as stipulated in the contract for recovery of damages. If other special insurance not herein provided for is required by the Contractor, the Owner shall effect such insurance at the Contractor's expense by appropriate riders to his fire insurance policy. The Owner, Contractor, and all subcontractors waive all rights, each against the others, for damages caused by fire or other perils covered by insurance provided for under the terms of this contract, except such rights as they may have to the proceeds of insurance held by the Owner as Trustee.

The Owner shall be responsible for and at his option may insure against loss of use of his existing property, due to fire or otherwise, however caused. If required in writing by any party in interest, the Owner as Trustee shall, upon the occurrence of loss, give bond for the proper performance of his duties. He shall deposit any money received from insurance in an account separate from all his other funds and he shall distribute it in accordance with such agreement as the parties in interest may reach, or under an award of arbitrators appointed, one by the Owner, another by joint action of the other parties in interest, all other procedure being as provided elsewhere in the contract for arbitration. If after loss no special agreement is made, replacement of injured work shall be ordered and executed as provided for changes in the work.

The Trustee shall have power to adjust and settle any loss with the insurers unless one of the Contractors interested shall object in writing within three working days of the occurrence of loss, and thereupon arbitrators shall be chosen as above. The Trustee shall in that case make settlement with the insurers in accordance with the directions of such arbitrators, who shall also, if distribution by arbitration is required, direct such distribution.

ARTICLE 30

GUARANTY BONDS

The Owner shall have the right, prior to the signing of the Contract, to require the Contractor to furnish bond covering the faithful performance of the Contract and the payment of all obligations arising thereunder, in such form as the Owner may prescribe and with such sureties as he may approve. If such bond is required by instructions given previous to the submission of bids, the premium shall be paid by the Contractor; if subsequent thereto, it shall be paid by the Owner.

ARTICLE 31

DAMAGES

Should either party to this Contract suffer damages because of any wrongful act or neglect of the other party or of anyone employed by him, claim shall be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the final payment, except as expressly stipulated otherwise in the case of faulty work or materials, and shall be adjusted by agreement or arbitration.

ARTICLE 32

LIENS

Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the Owner a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information the releases and receipts include all the labor and material for which a lien could be filed; but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Owner, to indemnify him against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all moneys that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

ARTICLE 33

ASSIGNMENT

Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any moneys due or to become due to him hereunder, without the previous written consent of the Owner.

ARTICLE 34

MUTUAL RESPONSIBILITY OF CONTRACTORS

Should the Contractor cause damage to any separate contractor on the work the Contractor agrees, upon due

notice, to settle with such contractor by agreement or arbitration, if he will so settle. If such separate contractor sues the Owner on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor, who shall defend such proceedings at the Owner's expense and, if any judgment against the Owner arise therefrom, the Contractor shall pay or satisfy it and pay all costs incurred by the Owner.

ARTICLE 35

SEPARATE CONTRACTS

The Owner reserves the right to let other contracts in connection with this work under similar General Conditions. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with theirs.

If any part of the Contractor's work depends for proper execution or results upon the work of any other contractor, the Contractor shall inspect and promptly report to the Architect any defects in such work that render it unsuitable for such proper execution and results. His failure so to inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other contractor's work after the execution of his work.

To insure the proper execution of his subsequent work the Contractor shall measure work already in place and shall at once report to the Architect any discrepancy between the executed work and the drawings.

ARTICLE 36

SUBCONTRACTS

As soon as practicable and before awarding any subcontracts, the Contractor shall notify the Architect in writing of the names of the subcontractors proposed for the principal parts of the work, and for such other parts as the Architect may direct, and shall not employ any to whom the Architect may have a reasonable objection.

If before or after the execution of the Contract, the Contractor has submitted a list of subcontractors which has been approved by the Architect, and the change of any subcontractor on such list is required by the Owner after such approval, the contract price shall be increased or decreased by the difference in cost occasioned by such change.

The Contractor shall not be required to employ any subcontractor against whom he has a reasonable objection.

The Architect shall, on request, furnish to any subcontractor, wherever practicable, evidence of the amounts certified on his account.

The Contractor agrees that he is as fully responsible to the Owner for the acts and omissions of his subcontractors and of persons either directly or indirectly employed by them, as he is for the acts and ommissions of persons directly employed by him.

Nothing contained in the contract documents shall create any contractual relation between any subcontractor and the Owner.

ARTICLE 37

RELATIONS OF CONTRACTOR AND SUBCONTRACTOR

The Contractor agrees to bind every Subcontractor and every Subcontractor agrees to be bound by the terms of the Agreement, the General Conditions of the Contract, the Supplementary General Conditions, the Drawings and Specifications as far as applicable to his work, including the following provisions of this article, unless specifically noted to the contrary in a subcontract approved in writing as adequate by the Owner or Architect.

The Subcontractor agrees—

a) To be bound to the Contractor by the terms of the Agreement, General Conditions of the Contract, the Supplementary General Conditions, the Drawings and Specifications, and to assume toward him all the obligations and responsibilities that he, by those documents, assumes toward the Owner.

b) To submit to the Contractor applications for payment in such reasonable time as to enable the Contractor to apply for payment under Article 24 of the General Conditions.

c) To make all claims for extras, for extensions of time and for damages for delays or otherwise, to the Contractor in the manner provided in the General Conditions of the Contract and the Supplementary General Conditions for like claims by the Contractor upon the Owner, except that the time for making claims for extra cost is one week.

The Contractor agrees—

d) To be bound to the Subcontractor by all the obligations that the Owner assumes to the Contractor under the Agreement, General Conditions of the Contract, the Supplementary General Conditions, the Drawings and Specifications, and by all the provisions thereof affording remedies and redress to the Contractor from the Owner.

e) To pay the Subcontractor, upon the payment of certificates, if issued under the schedule of values described in Article 24 of the General Conditions, the amount allowed to the Contractor on account of the Subcontractor's work to the extent of the Subcontractor's interest therein.

f) To pay the Subcontractor, upon the payment of certificates, if issued otherwise than as in (e), so that at all times his total payments shall be as large in proportion to the value of the work done by him as the total amount certified to the Contractor is to the value of the work done by him.

g) To pay the Subcontractor to such extent as may be provided by the Contract Documents or the subcontract, if either of these provides for earlier or larger payments than the above.

h) To pay the Subcontractor on demand for his work or materials as far as executed and fixed in place, less

the retained percentage, at the time the certificate should issue, even though the Architect fails to issue it for any cause not the fault of the Subcontractor.

j) To pay the Subcontractor a just share of any fire insurance money received by him, the Contractor, under Article 29 of the General Conditions.

k) To make no demand for liquidated damages or penalty for delay in any sum in excess of such amount as may be specifically named in the subcontract.

l) That no claim for services rendered or materials furnished by the Contractor to the Subcontractor shall be valid unless written notice thereof is given by the Contractor to the Subcontractor during the first ten days of the calendar month following that in which the claim originated.

m) To give the Subcontractor an opportunity to be present and to submit evidence in any arbitration involving his rights.

n) To name as arbitrator under arbitration proceedings as provided in the General Conditions the person nominated by the Subcontractor, if the sole cause of dispute is the work, materials, rights or responsibilities of the Subcontractor; or, if of the Subcontractor and any other subcontractor jointly, to name as such arbitrator the person upon whom they agree.

The Contractor and the Subcontractor agree that—

o) In the matter of arbitration, their rights and obligations and all procedure shall be analogous to those set forth in this contract; provided, however, that a decision by the Architect shall not be a condition precedent to arbitration.

Nothing in this article shall create any obligation on the part of the Owner to pay or to see to the payment of any sums to any subcontractor.

ARTICLE 38

ARCHITECT'S STATUS

The Architect shall have general supervision and direction of the work. He is the agent of the Owner only to the extent provided in the Contract Documents and when in special instances he is authorized by the Owner so to act, and in such instances he shall, upon request, show the Contractor written authority. He has authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract.

As the Architect is, in the first instance, the interpreter of the conditions of the Contract and the judge of its performance, he shall side neither with the Owner nor with the Contractor, but shall use his powers under the contract to enforce its faithful performance by both.

In case of the termination of the employment of the Architect, the Owner shall appoint a capable and reputable Architect against whom the Contractor makes no reasonable objection, whose status under the contract shall be that of the former Architect; any dispute in connection with such appointment shall be subject to arbitration.

ARTICLE 39

ARCHITECT'S DECISIONS

The Architect shall, within a reasonable time, make decisions on all claims of the Owner or Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the Contract Documents.

The Architect's decisions, in matters relating to artistic effect, shall be final, if within the terms of the Contract Documents.

Except as above or as otherwise expressly provided in the Contract Documents, all the Architect's decisions are subject to arbitration.

If, however, the Architect fails to render a decision within ten days after the parties have presented their evidence, either party may then demand arbitration. If the Architect renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence but shall not disturb or interrupt such proceedings except where such decision is acceptable to the parties concerned.

ARTICLE 40

ARBITRATION

All disputes, claims or questions subject to arbitration under this contract shall be submitted to arbitration in accordance with the provisions, then obtaining, of the Standard Form of Arbitration Procedure of The American Institute of Architects, and this agreement shall be specifically enforceable under the prevailing arbitration law, and judgment upon the award rendered may be entered in the court of the forum, state or federal, having jurisdiction. It is mutually agreed that the decision of the arbitrators shall be a condition precedent to any right of legal action that either party may have against the other.

The Contractor shall not cause a delay of the work during any arbitration proceedings, except by agreement with the Owner.

Notice of the demand for arbitration of a dispute shall be filed in writing with the other party to the contract, and a copy filed with the Architect. The demand for arbitration shall be made within a reasonable time after the dispute has arisen; in no case, however, shall the demand be made later than the time of final payment, except as otherwise expressly stipulated in the contract.

The arbitrators, if they deem that the case requires it, are authorized to award to the party whose contention is sustained, such sums as they or a majority of them shall deem proper to compensate him for the time and expense incident to the proceeding and, if the arbitration was demanded without reasonable cause, they may also award damages for delay. The arbitrators shall fix their own compensation, unless otherwise provided by agreement, and shall assess the costs and charges of the proceedings upon either or both parties.

ARTICLE 41

CASH ALLOWANCES

The Contractor shall include in the contract sum all allowances named in the Contract Documents and shall cause the work so covered to be done by such contractors and for such sums as the Architect may direct, the contract sum being adjusted in conformity therewith. The Contractor declares that the contract sum includes such sums for expenses and profit on account of cash allowances as he deems proper. No demand for expenses or profit other than those included in the contract sum shall be allowed. The Contractor shall not be required to employ for any such work persons against whom he has a reasonable objection.

ARTICLE 42

USE OF PREMISES

The Contractor shall confine his apparatus, the storage of materials and the operations of his workmen to limits indicated by law, ordinances, permits or directions of the Architect and shall not unreasonably encumber the premises with his materials.

The Contractor shall not load or permit any part of the structure to be loaded with a weight that will endanger its safety.

The Contractor shall enforce the Architect's instructions regarding signs, advertisements, fires and smoking.

ARTICLE 43

CUTTING, PATCHING

The Contractor shall do all cutting, fitting or patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by work of other contractors shown upon, or reasonably implied by, the Drawings and Specifications for the completed structure, and he shall make good after them as the Architect may direct.

Any cost caused by defective or ill-timed work shall be borne by the party responsible therefor.

The Contractor shall not endanger any work by cutting, excavating or otherwise altering the work and shall not cut or alter the work of any other contractor save with the consent of the Architect.

ARTICLE 44

CLEANING UP

The Contractor shall at all times keep the premises free from accumulations of waste materials or rubbish caused by his employees or work, and at the completion of the work he shall remove all his rubbish from and about the building and all his tools, scaffolding and surplus materials and shall leave his work "broom-clean" or its equivalent, unless more exactly specified. In case of dispute the Owner may remove the rubbish and charge the cost to the several contractors as the Architect shall determine to be just.

SECTION C

INSTRUCTIONS TO BIDDERS

C-01 Basis of Contract: See Invitation to Bid and Proposal Form.

C-02 Bid Security: See Invitation to Bid and Proposal Form.

C-03 Interpretations:

No oral interpretation will be made to bidders as to the meaning of the drawings and specifications. Requests for interpretation of drawings and specifications must be made in writing to the Architect not later than five (5) days prior to date set for receipt of the proposals, and failure on the part of the successful bidder to do so shall not relieve him as Contractor of the obligations to execute such work in accordance with a later interpretation by the Architect. All interpretations made to bidders will be issued in the form of addenda to the plans and specifications and will be sent to all bidders. Such addenda are to be covered in the proposals, and in closing the contract they will become a part thereof.

C-04 Proposals

a. Proposals will be opened and read as stated in the Invitation to Bid.

b. All bids must be submitted in duplicate upon the same form as the blanks shown in Section B, and both copies must be signed. All blanks on the proposal form must be filled in. Three perforated copies of the proposal form in the specifications are furnished to bidders for their use. Numbers shall be written in English words and in Arabic numerals, and the completed forms shall be without interlineations, alterations, or erasures. Failure to submit a bid in the form requested or the inclusion of any alternates, conditions, limitations or provisions not called for will render the bid irregular and shall be considered sufficient cause for rejection of bid. Failure to complete entries in all blanks in the proposal form shall be considered sufficient cause for rejection of a proposal.

c. Bids are to be addressed to The Deupree Company, at the address shown in the Invitation to Bid and must be enclosed in an opaque, sealed envelope marked with the name of the project and identified with the words "PROPOSAL FOR CONSTRUCTION". Bids are to reach the address designated in the Invitation to Bid not later than the hour and date named in the Invitation to Bid. After that time no bids may be received or withdrawn.

d. Proposals together with the full bid security accompanying same may be withdrawn by bidders prior to the time set for official opening. After time has been called, no bid may be withdrawn for a period of thirty-five (35) days after the TIME and DATE of opening. Negligence or error on the part of any bidder in preparing his bid confers no right of withdrawal or modification of his bid after time has been called. Sureties and principals are advised that the Owner cannot give consideration to any plea of error in the preparation of a proposal.

C-05 Examination of Site

The bidder's attention is directed to Paragraph E-17 and Paragraph E-05 (c) of the Supplementary General Conditions.

C-06 Contract Form and Bonds

The bidder's attention is directed to Paragraph B-04 of the Proposal Form.

C-07 Award

The Owner reserves the right to reject any or all bids and to waive any technicalities and informalities. (See also Paragraph C-01).

DIVISION 1

DEMOLITION

1-A SCOPE

Demolition, Maintaining Traffic, Utility Lines, Protection of Structures and Property, Debris, Cleaning, Fence.

1-B CONDITION OF PREMISES

a. Accept premises as found; clear site as specified. Owner assumes no responsibility for condition of buildings on site nor continuation in condition existing at time of Proposal Invitation or thereafter.

b. Assume risk regarding damage or loss, whether by reason of fire, theft, or other casualty or happening, to specified buildings from and after Proposal Invitation date; no such damage or loss shall relieve Contractor from Contract obligation to complete work.

1-C DEMOLITION

a. Materials forming permanent part of buildings requiring demolition becomes Contractor's property; remove them. Where word "remove" occurs herein it shall mean removal from site.

b. Remove personal property, equipment, machinery, trade or other fixtures.

c. Do not remove buildings as whole or substantially as whole; demolish them completely. Remove buildings, other obstructions to existing street, curb level.

d. Demolish masonry walls in small sections. Remove, lower carefully structural steel, heavy timbers. Remove furnaces, heating apparatus, piping, stairways, similar materials.

e. Do not remove, but break up existing floors on earth or fill, except wood construction, to permit drainage; remove wood construction.

f. During demolition operations, keep work wet down thoroughly to prevent dust, dirt from rising; provide water lines for this purpose; furnish connections that may be required. Upon work completion, remove installed temporary water or other lines.

1-D MAINTAINING TRAFFIC

a. Do not close or obstruct streets, sidewalks without permit. Do not place nor store material in streets.

b. Conduct operations with minimum interference with streets, sidewalks, facilities.

c. Provide, erect, maintain lights, barriers, sidewalk sheds and the like required by traffic regulations or local laws.

1-E UTILITY LINES

a. Seal storm or sanitary sewers leading from buildings requiring demolition. Seal, cap connections to sewers leading from buildings as per rules, regulations of authorities having jurisdiction.

b. Remove live water taps actually servicing buildings requiring demolition as per rules, regulations of authorities having jurisdiction. Have steam, gas turned off at existing valves by and under supervision of Utility Company owning service.

c. Contractor will be permitted to leave one water tap open for use during demolition. Shut off other water taps serving buildings requiring demolition within (5) days after notice to proceed. Furnish evidence of shutting off these taps. Shut off remaining individual water taps when demolition work is completed. Disconnect electric, telephone, other wires as per rules, regulations of authorities having jurisdiction. Until acceptance, maintain, preserve utilities traversing premises.

d. Backfill, tamp street openings made for removal of water taps, bulkheading house drains, or for any other purpose. Maintain street openings in safe condition.

1-F PROTECTION OF STRUCTURES AND PROPERTY

a. Execute demolition work to insure adjacent property against damages which might occur from falling debris or other cause; do not interfere with use of adjacent buildings; maintain free, safe passage to and from same.

b. Take precautions to guard against movement or settlement of adjacent buildings; provide. place bracing or shoring necessary or proper in connection therewith; be responsible for safety, support of such buildings; be liable for any such movement or settlement, any damage or injury caused thereby or resulting therefrom. If at any time safety of any adjacent buildings appears to be endangered, cease operations; notify Architect; take precautions to support such buildings; do not resume operations until permission has been granted. If Architect considers additional bracing or shoring necessary to safeguard, prevent such movement or settlement, install bracing or shoring upon Architect's order; if Contractor fails to comply promptly with such order, such bracing, shoring may be placed by Architect, at Contractor's expense.

c. Take precautions to guard against movement, settlement, or collapse of any sidewalks or street passages adjoining property; be liable for any such movement, settlement, or collapse; repair promptly such damage when so ordered.

d. Repair damage done to Owner's property or any other person or persons on or off premises by reason of required work.

e. Where building to be demolished adjoins another building which is to remain standing, to which it is connected by party wall, party wall shall remain in its entirety, unless otherwise specified. Perform following work in neat, workmanlkie manner, where applicable to buildings affected:-

(1) Bend over anchors at beam ends in standing party wall; brick up open beam holes. Where conditions make it necessary, add required anchoring to party walls to insure safety thereof.

(2) Remove unnecessary chimney breasts, other projections; brick up openings flush on exposed side of standing party wall. Point, patch masonry, in standing party wall, which is in poor condition.

(3) Where walls which intersect standing party wall are to be removed (such as front, rear walls), remove walls; cut neatly at juncture face with standing party wall; parge cut thus made.

(4) Repair roofing, cornice, leader pipe, or other existing arrangement for protection of building against elements which is to be cut or distrubed by removel of adjoining building; render serviceable for purpose for which it was intended.

1-G DEBRIS

DIVISION 2

SUB-SURFACE SOIL DATA

The report of Soil Investigation for Deupree Company Property, Athens, Georgia Job 2188 as prepared July 21, 1959 by Law Engineering Testing Company, 136 Forrest Avenue N. E. Atlanta, Georgia, is hereby made a part of this Division and copies of same are available at the office of the Architect.

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DIVISION 3

EARTHWORK

3-A SCOPE

Excavation, Backfilling, Fill under Concrete Slab.

3-B INCIDENTALS

1. Sub-Surface Soil Data

Refer to Division 2.

2. Added or Omitted Earth Excavation

Architect may order additional excavation necessary. Architect may omit portions of excavation called for if necessary. Value of extra or omitted work shall be determined according to Articles 15 and 16 of the General Conditions and Article E-05 of the Supplementary General Conditions.

3. Rock Excavation

Material to be excavated is assumed to be earth and other materials that can be removed by power shovel. If rock as herein defined is encountered within the limits of excavation, the contract price will be adjusted. Rock is defined as rock, stone, hard shale in original ledge, boulders over one cubic yard in volume, masonry or concrete that cannot be broken and removed by power shovel without the use of explosives or drills. Value of rock excavation shall be determined according to Articles 15 and 16 of the General Conditions and Article E-05 of the Supplementary General Conditions. Measurement of rock excavation will be limited to 6" on each side of the outside of footing and no extras will be allowed for bank slope. When rock is encountered, uncover all rock in areas affected and notify Architect. Any rock removed prior to approval of the Owner shall not be included in the cost of rock excavation. No rock is defined above shall be included in the base bid.

4. Extra Fill

All extra earth needed to fill site to required levels shall be transported to the site. Earth shall be free of rubbish, debris or topsoil.

3-C MATERIALS AND INSTALLATIONS

1. Excavation

Clear areas to be covered by new building of all rubbish and other objectionable matter, which shall be removed from the site. Excavate to elevations and dimensions plus sufficient space to permit erection of forms, waterproofing, etc. All bottoms to be clean cut, true, level and sound. No earth fill allowed under footings or foundations. At no extra cost to Owner, carry footings and foundations to bottom of any excavation erroneously carried too deep. No claims allowed for extra cost due to contractor's errors in grading and excavation. Bottoms of trench and foundation shall be level. Footing trenches may be cut to the exact size if the nature of the soil is such that forms are not necessary. Do not pour footings until Architect has examined and approved surface upon which footings will rest. Protect excavation and building from water damage. Grade, ditch or provide pumps where necessary

to run surface water away from excavation and building walls at all times. If any active or inactive sewers, piping, etc., are encountered notify Architect. Restore active sewers, piping, etc., if damaged.

Provide and erect all sheet piling and shoring necessary to retain the earth banks and prevent cave-in and displacement of the adjacent properties. All shoring shall be placed so as to interfere with the building work as little as possible. Remove and replace any cave-ins or damage to site or adjacent properties at no cost to the Owner.
All sheet piling, shoring and bracing, etc. shall be maintained in a safe and satisfactory condition at all times and shall not be removed until so directed by the Architect or when no longer needed. Whenever it becomes necessary to remove any section of shoring, etc. for the proper carrying on of other work, additional and satisfactory shoring shall be provided.

2. Backfilling

Do no backfilling until footings, foundations and other work have been approved by the Architect. Place no backfill against restraining walls until they have attained sufficient strength to withstand the load or as noted on the drawings. Remove from excavation all forms, debris and other loose materials before backfilling is started.
Backfill with earth free of rubbish, debris or topsoil. Backfill in layers not exceeding 6" in thickness. Each layer shall be rammed, puddled and tamped by power operated mechanical equipment so as to insure that no settlement will occur. Fill shall be compacted to 90 lb. density.

3. Fill Under Concrete Slab

Install all fill as required under all concrete slabs on grade. Fill shall be earth free of rubbish, debris or topsoil. Fill in 6" layers. Each layer shall be rammed, puddled and tamped by power operated mechanical equipment so as to insure that no settlement will occur. Fill shall be compacted to 90 lb. density. Obtain Architect's approval of fill under concrete slab before covering.

DIVISION 4

STRUCTURAL STEEL

4-A SCOPE

This Contractor shall furnish all labor, materials and equipment necessary to completely install all structural steel, anchor bolts, bolts, tube columns and welds as shown on the drawings, specified herein and required for a complete installation.

4-B INCIDENTAL

1. The General Conditions are hereby made a part of this Division.

2. The Contractor shall request of the Architect interpretation of all details which are not entirely clear. The Contractor is warned against proceeding on his own interpretation of all such details.

3. Shop Drawings:

   a. Submit to the Architect drawings for structural steel, anchor bolts and tube columns. All dimensions necessary to the checking of shop drawings shall be shown.

   b. The Contractor shall be responsible for conformation of all details to the typical and special details indicated on the drawings. Work must not proceed in the field before the Contractor has received applicable approved drawings.

   c. All details and notes appearing on the contract drawings, and giving information for the erection of steel, shall be shown also on the shop drawings, so that the steel erector will not have to work with two sets of drawings. Shop drawings will not be approved without such information.

4. Applicable Specifications and Codes:

   The following Specifications and Codes form a part of this Specification:

   a. American Institute of Steel Construction Publications

      Code of Standard Practice for Steel Buildings and Bridges

      Specification for the Design, Fabrication and Erection of Structural Steel for Buildings

   b. American Welding Code

      Arc and Gas Welding in Building Construction

5. Substitution of Sections: In case sections called for on the drawings cannot be obtained, other sections of equivalent strength may be substituted; but, in the case of beams, the ratio of flange width to distance between lateral support of the top flange must be maintained, unless the unit stresses are properly reduced.

6. Qualification of Welders: The Contractor shall submit to the Architect an affidavit stating that all welders employed by him, or by the structural steel Sub-contractor, in the execution of work under this contract, has been previously qualified by test as prescribed in the American Welding Society's Standard Qualification Procedure, to do the type of welding which the contract involves.

7. Field Measurements: The Contractor shall take all measurements in the field as required to verify or supplement dimensions shown on the drawings.

4-C MATERIALS AND INSTALLATION

1. Structural Steel, Anchor Bolts and Tube Columns shall conform to the "Tentative Specification for Steel for Bridges and Buildings", A.S.T.M. Serial Designation A7, latest edition.

2. Tests

   q. Tests are required of all steel placed in the building, and shall be conducted in accordance with the recommendations of the American Society for Testing Materials.

   b. Three copies of reports of tests stating whether the steel meets the requirements of the applicable A.S.T.M. Specifications shall be sent to the Architect.

   c. Cost of tests shall be borne by the Contractor.

3. Workmanship:

   a. All workmanship shall be equal to the best practice in modern structural shops, and unless otherwise specified, structural steel work shall conform to the specifications of the American Institute of Steel Construction, latest edition.

   b. All material shall be clean and straight. If straightening and flattening are necessary, it shall be done by a process and in a manner that will not injure the material. Sharp kinks or bends will be cause for rejection.

   c. Rolled sections, except for minor details, shall not be heated; however, the use of a cutting torch is permissible if the metal being cut is not carrying stress during the operation. To determine the effective width of members so cut, 1/8" shall be deducted from each gas-cut edge.

   d. Holes for unfinished bolts shall be 1/16" larger than the nominal diameter of the bolt.

   e. Compression joints shown on the drawings which depend upon contact bearing shall have the bearing surfaces truly machined to a common plane. All other joints shall be cut straight.

   f. Finished members shall be true to line and free from twists, bends or open joints. Compression members shall have a lateral variation not greater than 1/1000 of the axial length between joints, which are to be laterally supported. A variation of 1/32" is permissible in the overall length of members with both ends milled. Members without milled ends which are to be framed to other steel parts of the structure may have a variation from the detailed length not greater than 1/16" for members 30'-0" long.

4. Connections:

   a. Connections shall be as shown on the drawings. When details are not shown the connections shall be equivalent in strength to the A.I.S.C. standard "B" series connection for the size of member shown.

   b. Welding shall be done in accordance with the Code for Arc and Gas Welding in Building Construction, 1941 edition, and Appendices, as formulated by the American Welding Society. Shielded arc electrodes shall be used for all welding.

   c. Shop Connections:

      (1) Shop connections shall be welded.

d. Field Connections:

(1) Unfinished bolts shall be used for all shear connections. Bolts shall be drawn up tight and threads set so that nuts cannot become loose. All moment connections shall be welded as indicated on the drawings.

(2) In case details on the drawings modify any of the foregoing, the details shall govern.

(3) Provide erection bolts as required for safety and accuracy of erection.

5. Erection:

a. Erection as called for under this Specification shall include the setting of all columns and bases and erection of all structural steel. This includes the setting of structural steel for lintels and all anchor bolts. There shall be no substitution of rivets or bolts for welded connections as shown on the drawings.

b. Erection procedure shall conform fully to the A.I.S.C. Specification for Design, Fabrication and Erection of Structural Steel for Buildings, unless otherwise noted or specifically directed by the Architect. All steel shall be erected true and plumb. Temporary bracing shall be introduced wherever necessary to support all loads to which the structure may be subjected. Such bracing shall be left in place as long as may be required for safety.

c. Cutting in the field to correct fabrication errors will not be permitted without the approval of the Architect.

d. The Contractor shall cooperate with the other trades and shall provide all holes and do all cutting, etc., necessary for bolted connections of their work to structural steel work.

6. Painting:

a. Before leaving the shop all steel and iron work shall, by the use of wire brushes and scrapers, be thoroughly cleaned of all mill scale, rust and dirt, and all members except those to be encased in concrete shall be given one coat of red lead and oil paint.

b. After steel has been erected, all members to be encased, or partially encased, in exterior walls shall be given a second coat of red lead and oil paint. This applies to columns, beams, struts, etc., which are in vertical or horizontal contact with exterior walls. Also, do all necessary repainting of areas where the painted surface has been injured or destroyed. The basic requirement of this Specification is that all exposed steel work, except as noted above, shall have at least one unbroken, smooth coat of paint.

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DIVISION 5

CONCRETE

5-A SCOPE

This Contractor shall furhish all labor, materials and equipment necessary to completely install all items of poured-in-place concrete, and all necessary items as shown on the drawings, specified herein and required for a complete installation.

5-B INCIDENTAL

1. The General Conditions are hereby made a part of this Division.

2. Delivery and Protection of Msterials:

   a. Cement shall be stored in a weathertight structure with the floor at least 12" off the ground, and accessible for inspection in the original packages.

   b. Fine and coarse aggregate shall be stored separately to assure segregation of sizes and to avoid inclusion of dirt and foreign materials in the concrete.

   c. Ready-mixed concrete shall be delivered in accordance with the requirements set forth in the "Standard Specifications for Ready-mixed Concrete". A.S.T.M. Serial Designation C-94-58.

   d. Reinforcing steel delivered to the job and not immediately placed in forms shall be placed in racks, or other supports, at least eighteen (18) inches above ground.

3. Shop Drawings:

   a. The Contractor shall prepare and submit to the Architect placing plans, bending details, and bar lists covering all reinforcing steel supplied under this contract. All dimensions necessary to the checking of reinforcing details shall be shown on shop drawings.

   b. The Contractor shall be responsible for conformation of all steel details to the typical and special details indicated on the design plans. Work must not proceed in the field before the Contractor has received applicable approved drawings.

   c. All details and notes appearing on the contract drawings, and giving information for the placing of reinforcing steel, shall be shown also on the shop drawings, so that the steel setter will not have to work with two sets of drawings. Shop drawings will not be approved without such information.

4. Applicable Specifications and Codes: The following Specifications and Codes form a part of this Specification:

   American Concrete Institute Publications

   Building Code Requirements for Reinforced Concrete (A.C.I.318-51)
   Manual of Standard Practice for Detailing Reinforced Concrete Structures (A.C.I.315-51)

5-C MATERIALS AND INSTALLATION

1. Cement: The cement used shall be Standard Portland Cement or High-Early Strength Portland Cement of American manufacture conforming to the "Standard Specifications for Portland Cement", A.S.T.M. Serial Designation C-150-56, Type I or Type III, respectively. Only one brand of Commercial Portland Cement

shall be used in the exposed concrete of the structure. Where Tyoe III is used, the bags shall be clearly marked and designated. Cement reclaimed by cleaning bags or from leaking containers shall not be used. Each bag shall weigh approximately 94 pounds and contain one cubic foot.

2. Concrete Agtregates:

   a. Aggregates shall conform with A.S.T.M. C-33-57 except as follows:

      (1) Fine aggregate shall be sand having clean, hard, durable uncoated grains. Fine aggregate gradation shall comply with State Highway Department of Georgia, Standard Specification, Vol. II, Material for Roads and Bridges, Art. 810-03, issued May 1, 1956.

      (2) Coarse aggregate shall be crushed stone, gravel, or other approved inert material, having clean, hard, durable, uncoated particles grading within the following percentages by weight:

Passing a	1"	Sieve	100	percent
"	3/4"	"	35 to 70	percent
"	3/8"	"	10 to 30	"
Passing a No.	4	"	0 to 5	"

      (3) The maximum size of aggregate for beams, slabs and walls shall be one inch. The maximum size of aggregate for footings and mass concrete may be 1-1/2 inches.

3. Water:

Water used in mixing concrete shall be clean and free from deleterious amounts of acids, alkalies, or organic materials.

4. Metal Reinforcement:

   a. Metal reinforcement shall be deformed type bars, A.S.T.M. Specification A-305-58T, manufactured from new Billet Steel or Rail Steel conforming to the requirements of "Standard Specification for Billet Steel Bars for Concrete Reinforcement", A.S.T.M. Serial Designation A-15-58T intermediate or hard grade, or "Standard Specifications for Rail Steel Bars for Concrete Reinforcement", A.S.T.M. Serial Designation A-16-57T.

   b. Welded wire fabric or cold-drawn for concrete reinforcement shall conform to the requirements of the "Standard Specifications for Cold-drawn Steel Wire for Concrete Reinforcement", A.S.T.M. Serial Designation A-82-58T, or "Standard Specifications for Welded Steel Wire Fabric for Concrete Reinforcement", A.S.T.M., Serial Designation A-185-58T.

5. Classes of Concrete:

   a. All concrete, with the exceptions shown below, shall be Class A, 3000 lbs. per sq. in. at 28-day test.

   b. Concrete for all slabs which rest solidly on earth (i.e. not self-supporting), caissons and paving including concrete curbs, outside of the building shall be Class B, 2500 lbs. per sq. in. at 28-day test.

6. Expansion Joint Material:

Expansion joint material shall be asphalt impregnated fiber strips 1/2 inch thick, unless otherwise shown on the drawings, equal to Celetex "Flexcell".

7. Tests:

a. The following tests are required and all shall be conducted in accordance with the recommendations of the American Society for Testing Materials.

(1) Mill tests on each car of Portland Cement used, or laboratory tests on marked bin from which cement is shipped.

(2) Mill tests on each 15 tons or less of reinforcing steel shipped to the job.

(3) Test Aggregate for grading, organic impurities, deleterious substances, mortar strength, soundness and moisture.

b. Three copies of each report of tests of cement, reinforcing steel and aggregate stating whether the material meets the requirements of the applicable A.S.T.M. Specifications shall be sent to the Architect. Cost of tests shall be borne by the Contractor.

8. Forms:

a. Formwork for all concrete shall be 3/4" 5-ply Douglas plywood of structural grade especially processed to resist moisture and conforming to Bureau of Standards Commercial Standards CS45-42, or equal.

b. Form Ties, if used where concrete is unexposed, shall be of a type approved by the Architect. Form Ties, where concrete is exposed shall be equal to Medco Form Clamps used with smooth tie rods as manufactured by Medco Steel Products Co., Birmingham, Alabama, standard "Snap Ties" will be acceptable.

c. Liquid coating for forms shall be equal to "Form Film", as manufactured by A. C. Horn Co., or "formlac" as marketed by Maxwell & Hitchcock, Inc., Atlanta, Ga.

9. Proportioning Concrete:

General: The working stresses for the design of this structure are based on the specified minimum ultimate 28-day compressive strength of the concrete. The mix design for each class of concrete shall be by a testing laboratory approved by the Architect. Approval of mix designs must be obtained from the Architect before placing any concrete. Cost of mix designs shall be borne by the Contractor.

a. The proportions of aggregate to cement for any concrete shall be such as to produce a mixture of which will work readily into the corners and angles of the forms and around reinforcement with the method of placing employed on the work, but without permitting the materials to segregate or excess free water to collect on the surface . The combined aggregates shall be of such composition of size that when separated on the No. 4 standard sieve the weight passing the sieve (fine aggregate) shall not be less than 30 percent nor greater than 50 percent of the total unless otherwise required by the Architect.

b. The determination of the proportions of cement, aggregate and water to attain the required strengths shall be made as follows: The water content per sack of cement shall not exceed the values in the following table, nor shall the bags of cement per cu. yd. of concrete be less than shown in the table.

Concrete Mixture

Class Con-Crete	Maximum Water Content U.S.Gal.per 94 lb.sack cement	Minimum Compressive Strength @ 28 days lb. per sq. in.	Bags of Cement Minimum	Maximum Slump
A	6-3/4	3000	5-1/2	4 to 6
B	7-1/4	2500	5	4 to 6

NOTE: In interpreting this table, surface water contained in the aggregate must be included as part of the mixing water in computing the water content.

c. Tests:

(1) During the progress of the work, compression tests shall be made by a testing laboratory approved by the Architect in accordance with the "Standard Method of Making and Storing Compression Test specimens of Concrete in the Laboratory", A.S.T.M. Serial Designation C-192-52T for laboratory control cylinders. Two copies of each report of cylinder tests to be mailed by the testing laboratory direct to the Architect and one copy mailed directly to the Structural Engineer.

(2) The testing laboratory, in order to be considered for approval, shall submit to the Architect a calibration certificate, or a photostatic copy thereof, showing that, within the preceding year, the testing machine has been calibrated by a manufacturer of such equipment.

(3) Four (4) standard test cylinders shall be taken from each fifty (50) cubic yards of concrete placed, or four (4) cylinders from each day's pour of less than fifty (50) cubic yards. All cylinders shall be laboratory control cylinders.

(4) One cylinder shall be tested for compressive strength at 7 days and one at 28 days. In case the 28-day test shows strength less than 100% of the specified strength at 28 days, additional cylinders shall be tested at 42 days and 56 days.

(5) In all cases where the average strength of cylinders shown by the tests for any portion of the structure falls below the specified compressive strength at 28 days, the Architect shall have the right to order a change in the mix or in the water content for the remaining portion of the structure. In cases where the average strength of the cylinders falls below the required strength, the Architect shall have the right to require questionable portions removed and replaced with proper concrete. Test of cores or any remedial measure will be at the discretion of the Architect.

(6) Costs for all tests shall be borne by the Contractor.

d. Unless otherwise approved by the Architect, concrete materials shall be proportioned only by weight.

e. Corrective measures: In the event that concrete appears on the job for use, whether job-mixed or ready-mixed, and a slump test made by the Architect indicates that the concrete is too wet for the required strength, this concrete shall be rejected until the Contractor can provide concrete in strict accordance with the specifications. All rejected concrete shall be hauled away from the site and disposed of at the Contractor's expense.

10. Batching and Mixing:

a. The Contractor shall provide all necessary equipment to accurately determine and control the actual amount of materials entering into the concrete mix. Individual ingredients shall be weighed separately for each batch. The accuracy of all weighing devices shall be such that successive quantities can be measured to within one percent (1%) of the desired amount.

b. All concrete shall be mixed in a power-operated batch mixer unless otherwise approved in writing by the Architect. For mixers having a capacity of one cu. yd. or less, the mixing shall continue for one full minute after all materials are in the mixer. For larger mixers, the mixing shall be increased 15 seconds for each additional half-cubic yard capacity or fraction thereof.

c. The contents of the mixer shall be completely discharged before each new batch is loaded. The use of retempered concrete will not be permitted.

d. Ready-mixed concrete shall be mixed in accordance with the requirements set forth in the "Specifications for Ready Mixed Concrete", A.S.T.M. Serial Designation C-94-58, and to the following:

  (1) A separate water metering device (not truck tank) shall be used for measuring water added to the original batch.

  (2) The use of wash water as a portion of the mixing water will not be permitted. Wash water added to empty drums after discharging shall be dumped before a new batch is received.

  (3) Central-mixed concrete shall be mixed for the length of time specified herein - not "shrink" mixed.

  (4) Mixing drums shall be watertight.

  (5) Concrete shall be discharged within 45 minutes from the time the concrete was mixed, if central-mixed, or from the time the original water was added, if transit-mixed.

  (6) If a drop in slump is anticipated, extra water shall be added when concrete is originally mixed, so that concrete will be discharged at proper slump.

e. A full size trial batch shall be mixed, using aggregate selected for the job, to establish correct proportions of mix to give proper workability without exceeding the specified water cement ratio and slump. If the desired workability is not obtained with the first combination of aggregates, the proportions of aggregate shall be adjusted within the limits of these Specifications until the mix meets the Architect's approval.

11. Conveying:

a. Concrete shall be conveyed from the mixer to the place of final deposit by methods which will prevent the separation or loss of the materials.

b. If the concrete is to be transported more than fifty feet in carts or buggies, they shall be equipped with pneumatic tires.

c. Equipment for chuting or other methods of conveying concrete

shall be of such size and design as to insure a practically continuous flow of concrete at the delivery and without separation or degradation of the materials.

d. Runway supports shall not bear upon reinforcing steel or fresh concrete.

e. All conveying equipment shall be thoroughly cleaned before beginning a run of concrete and at frequent internals during placing of the concrete.

12. Preparation for Placing:

a. Earth: Concrete shall not be placed on earth until the fill or excavation has been prepared as set forth under the applicable sections of the Specifications for that work.

b. Before placing any concrete in forms, all pipes or sleeves, openings, or embedded items shall be in place and shall have received the required tests and the installations approved by the Architect.

c. Concrete shall not be placed in forms until the formwork has been approved by the Architect; and all debris, wood shavings, and other matter have been removed from the forms, and the reinforced steel is in proper condition for the placement of concrete.

d. Hardened, or partially hardened, concrete on the forms or the reinforcement shall be removed before placing concrete.

e. Concrete shall be placed under the direct supervision of the Architect, who will be notified 48 hours in advance.

13. Placing:

a. Concrete shall be deposited as nearly as practicable in its final position to avoid segregation due to rehandling or flowing. No concrete shall be deposited on the work that has partially hardened or been contaminated by foreign material, nor shall retempered concrete be used. In no case shall concrete be used when the elapsed time after the addition of water and cement to batch exceeds 45 minutes.

b. When concreting is once started, it shall be carried on as a continuous operation until the placing of the panel or section is completed. The top surface shall be finished to a true plane. When construction joints are necessary, they shall be made in accordance with the applicable sections of the Specifications for construction joints.

c. All concrete shall be thoroughly compacted by suitable means during the operation of placing, and shall be thoroughly worked around reinforcement, embedded fixtures, and into corners of the forms. When vibration is used, it shall be applied directly to the concrete, unless otherwise approved by the Architect.

d. Cold weather precautions:

(1) Adequate equipment shall be provided for heating the concrete materials and protecting the concrete during freezing or near-freezing weather. No frozen materials, or materials containing ice, shall be used.

(2) All concrete materials and all reinforcement, forms fillers and ground with which concrete is to come in

contact shall be free from frost. Whenever the temperature of the surrounding air is below 40 degrees F., all concrete placed in the forms shall have a temperature between 70 degrees F. and 80 degrees F., and adequate means shall be provided for maintaining a temperature of not less than 70 degrees F. for 3 days, or 50 degrees F. for 5 days, except when High-Early strength concrete is used the temperature shall be maintained at not less than 70 degrees F. for 2 days, or 50 degrees F. for 3 days, or for as much more time as is necessary to insure proper curing of the concrete.

No dependence shall be placed on salt or other chemicals for the prevention of freezing.

14. Curing and Protection:

a. All freshly placed concrete shall be adequately protected from damage or injury due to water, falling objects, persons, or anything that may mar or injure the finish surface of the concrete. Any surfaces that are damaged due to lack of protective measures shall be removed and replaced with fresh concrete at the expense of the Contractor. Fresh concrete placed in the vicinity of public traffic shall be adequately protected with barriers, lights, and any other protective measures necessary

b. Concrete shall be maintained in the moist condition for at least five (5) days after placement except that for High-Early strength concrete moist curing shall be provided for at least the first two (2) days.

c. Slabs shall be covered with sand or burlap where necessary to hold water. At the Contractor's option, an approved type of membrane curing applied in strict accordance with the manufacturer's Specifications may be employed in lieu of the above method of curing.

d. Before traffic is allowed on any finished slab, it shall be covered by one layer of Sisal Kraft or approved similar waterproofed paper, lapped at least four inches, with lap continuously filled with waterproof cement. In case of damage or injury to the paper, it shall be replaced immediately. It is the intent of this Specification that, after a concrete floor is finished and approved and cured, no damage whatsoever shall occur to it until the completion of construction by any construction methods, materials, or personnel used by the Contractor or from other sources that are within the scope of the Specifications and the contract.

15. Formwork:

a. Design of Forms: Forms shall conform to the shape, lines and dimensions of the members as called for on the plans, and shall be substantial and sufficiently tight to prevent leakage of mortar. They shall not deflect under load weight of construction as a liquid or of construction load. Forms shall be properly braced or tied together so as to maintain position and shape. Forms shall be so constructed that they can be removed readily without hammering or prying against the concrete.

b. The Architect shall have the right to reject any forms that do not appear to him to be sufficient as to strength, alignment, or workmanship. Should misalignment of forms or screeds, excessive deflection of forms or displacement of reinforcing occur during concrete placing, corrective measures shall be

immediately made, to the extent, if necessary, that placing operations shall be stopped and concrete removed from within forms. The corrective measures shall be such as to insure acceptable lines and surfaces to required dimensions and cross-sections.

c. Formwork shall be approved by the Architect before pouring of concrete. The Architect shall be notified to inspect the forms when the outside form is erected and reinforcement is in place and before the inside form is erected. The inside form shall not be placed until work already done is approved.

d. Lumber once used as forms or secondhand lumber shall have nails withdrawn and the surface to be in contact with the concrete carefully cleaned before reuse. Before placing the reinforcement, faces of wood forms in contact with the concrete shall receive a thorough coating of liquid sealer conforming to these Specifications.

e. Removal of Forms:

Forms shall be removed in such a manner as to insure the complete safety of the structure. The Contractor shall assume all responsibility for removal of formwork, but no forms shall be removed without the Architect's approval. Under ordinary weather conditions, wall forms and other vertical forms for concrete which does not span between definite supports, may be removed in two (2) days. Concrete beams and slabs shall attain 70% of the specified ultimate strength before removing the forms.

16. Reinforcement:

a. Metal reinforcement, at the time concrete is placed, shall be free from rust scale, or other coatings that will destroy or reduce the bond. Bends for bars shall be made around a pin having a diameter not less than six times the minimum thickness of the bar. Except that for bars larger than one (1) inch, the pin shall be not less than eight times the minimum thickness of the bar. All bars shall be bent cold unless the heating of bars is approved in writing by the Architect. Bars with kinks or bends not shown on the plans shall not be used.

b. Metal reinforcement shall be accurately placed in accordance with the plans and shall be adequately secured in position with not less than 16 gauge annealed wire or suitable clips at intersections. Reinforcement shall be held securely the required distance from the forms, or ground in case of footings, by concrete or metal chairs and spacers, except broken brick or tile may be used to support reinforcement in slabs on ground. Nails shall not be driven into outside forms to support reinforcement.

c. The spacing of metal chairs and spacers, or metal hangers, shall be in accordance with the recommendations of the Manual of Standard Practice for Detailing Reinforced Concrete Structures.

d. Metal reinforcement shall be protected by concrete cover. Where not otherwise shown, the thickness of concrete over the reinforcement shall be as follows:

Grade Beams - 2" clear, top and sides, 3" clear bottom
Footings - 3" clear, sides and bottom
Walls - Surfaces exposed to weather, 2" clear
interior surfaces, 1-1/2" clear
Slabs - 3/4" clear, top and bottom

e. All splicing of reinforcement not shown on the drawings shall be approved by the Architect. Splices shall not be made at point of maximum stress and shall provide sufficient lap to transfer the stress between bars and bond. Temperature bars in walls and floor slabs may be spliced by lapping 24 diameters.

f. The reinforcing steel shall be fabricated to the shapes and dimensions indicated on the drawings and shall be placed with reasonable tolerance where indicated on the plans or called for in the Specifications. The complete placement of reinforcement shall be approved by the Architect before pouring of concrete. Should there be any substantial delay in the work, reinforcement previously placed shall be reinspected and cleaned, if necessary, before concrete placement is resumed.

17. Construction Joints and Expansion Joints:

a. Location of construction joints not indicated on the plans shall have the written approval of the Architect. Where a construction joint is to be made, the surface of the concrete shall be roughened and thoroughly cleaned of foreign matter and laitance. In addition to the foregoing, joints shall be moistened with water and slushed with a mortar consisting of one part Portland cement to one part of clean sharp sand immediately before the placing of new concrete.

b. Expansion Joints shall be placed where concrete slabs on earth abut vertical surfaces.

18. Slots, Chases, Recesses, Thimbles, Keys and Openings:

a. Box out for all slots, chases, recesses, or other openings as shown on the drawings or as required by the work of all other trades.

b. It is definitely the responsibility of the Contractor to see that every insert, or similar item of whatever nature, is placed in the forms before concrete is poured, or that provision has been made for future insertion or connection. The same applies to provision for openings, of whatever nature, to be left in the concrete.

c. Supply and install in concrete where indicated on drawings metal slots designed to receive dovetail anchors specified in another Division, made of 24 gauge galvanized steel or iron. All such metal slots shall be set vertically.

d. Sub-contractors for Mechanical and Electrical equipment are required to furnish and place their own inserts, thimbles, hanger rods, etc. The Contractor shall confer with all these Sub-contractors to ascertain their requirements, and shall be responsible for any error due to failure to so confer.

19. Concrete Finishes:

a. All exposed concrete surfaces shall have a rubbed finish. Finished surfaces shall be practically perfect without fins, burrs, form marks, or nail heads and shall be given a smooth and even carborundum rubbed finish. Brush coating of concrete shall not be allowed after rubbing.

b. Unexposed concrete surfaces may be rough finished but to true lines and dimensions.

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c. Concrete floors shall be finished as follows:

(1) All exposed floors and walks not indicated in the finish schedule for trowel finish, or to receive resilient flooring, shall be wood floated.

(2) Surfaces intended to receive cement setting beds for other materials shall be screened to a true plane and scraped free of laitance or scum immediately thereafter and shall be roughened mechanically for bond as soon as they will bear the weight of workmen.

(3) All floors that are scheduled to receive resilient flooring and all other floors that are scheduled to receive a trowel finish shall be finished as follows: Floor slabs shall be screeded to an even surface by the use of straight edge and screeding strips accurately and securely set to the proper grade. The concrete shall be floated with a wood float in a manner which wi ll compact it and produce a surface free from depressions or inequalities of any kind. Floors shall be level, with a tolerance of 1/8 inch in ten feet, except where drains occur, in which case the floors shall be pitched to the drains as indicated in the drawings. After the concrete has hardened sufficiently to prevent fine materials from working to the top, and allowed to stand until all water sheen has disappeared, it shall be steel troweled. Final troweling shall be done after the concrete is so hard that no mortar accumulates on the trowel and a ringing sound is produced as the trowel is drawn over the surface. The drying of the surface moisture before troweling must proceed naturally and must not be hastened by the dusting of any dry sand or cement.

20. Patching and Finishing:

a. All poor joints, voids, honeycomb, and cavities left by form ties and other imperfections in concrete that is to be exposed shall be patched within the same working day that forms are removed. The following instructions shall govern:

(1) Prepare cavities for patching by cutting out to a depth of at least 1" without feather edges. Wet cavities and surrounding areas within 6" and paint cavities with neat cement grout immediately before patching.

b. Use a mix of Portland cement and sand in same proportions used in the concrete being patched. Sufficient white Portland cement should be blended into the patching mortar to insure that the patch, when finished and cured, will match the concrete in color. Hold mixing water to a minimum and stir mortar with a trowel at intervals, without adding water, for one hour before using.

c. Compact mortar thoroughly into voids leaving patch a little high until shrinkage.

d. Finish patches to texture of adjoining surfaces and keep wet for 7 days.

e. Make no attempt to correct major defects before they have been examined by the Architect and approval obtained to make correction.

21. Exterior Concrete Walks and Slabs:

Exterior concrete slabs not otherwise shown shall be four inches thick and reinforced with 6 x 6 - 10/10 wire mesh. Provide expansion joints extending through the slab not over 10'-0" o.c. and at all intersections with the building walls except where otherwise shown. Walking surfaces of sidewalks shall be wood-floated to a smooth, even finish.

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DIVISION 6

OPEN-WEB STEEL JOIST

6-A SCOPE

The Contractor shall furnish all labor, materials and equipment necessary to complete all steel joist work as shown on the drawings and as herein specified.

6-B INCIDENTAL

1. The General Conditions are hereby made a part of this Division.

2. All joists shall be manufactured in accordance with the Specifications by one of the following:

    a. A member company or associate company of the Steel Joist Institute.

    b. A company not a member of the Steel Joist Institute, who shall, prior to the fabrication, submit to and receive approval from the Architect, the following items:

        (1) Complete design calculations for the joists to be supplied.

        (2) Complete fabricating details.

        (3) A certificate stating that the joist design, materials and workmanship comply with these Specifications.

3. The Contractor shall submit to the Architect shop drawings, which shall show all details and dimensions necessary for checking, fabrication and installation of joists. Work must not proceed in the field before the Contractor has received applicable approved drawings.

6-C MATERIALS AND INSTALLATION

1. Joists shall be open web steel joists "S" series as shown on the drawings. Joists shall meet the requirements of the "Standard Loading Table" and the "Standard Specification" of the Steel Joist Institute, except as otherwise indicated by the drawings or specifications.

2. The maximum spacing of steel joists shall be as indicated on the drawings. Where multiple joists are called for they shall be spaced as closely as practicable.

3. In case details on the drawings modify the anchorage, bearing or bridging requirements of the Standard Specifications of the Steel Joist Institute, the drawings shall govern.

DIVISION 7

MASONRY

7-A SCOPE

Brick, Hollow Clay Tile, Ceramic Veneer, Stone Coping, Splashblock, Flashing Blocks, Vitreous Clay Tile Copings, Masonry Mortar.

7-B INCIDENTALS

1. Samples

Submit samples of face brick, ceramic veneer and stone coping to Architect for approval. Provide Architect with letters certifying that each of the brick specified and the hollow clay tile meets required specifications.
Lay up a panel of face brick and a panel of Jumbo Brick on the job. Panels shall be 4' high and 4' long each. The panels which are approved by the Architect will be representative of the materials and workmanship on the masonry walls of the building. The approved panels shall remain on the job until the completion of all masonry work on the building.

2. Delivery and Protection of Materials

All masonry units and precast stone shall be stacked on plank platforms in dry location. During freezing weather all masonry units not under roof shall be completely covered with tarpaulins or other suitable material.

3. Protection of the Work

During erection top of all masonry walls shall be kept dry by covering with canvas or waterproof paper. Partially completed walls not being worked on shall be similarly protected at all times. Covering shall overhang at least 2' on each side of the wall.

4. Refer to Miscellaneous Items Division for installation of masonry anchors and masonry wire reinforcing.

7-C MATERIALS AND INSTALLATIONS

1. Brick

a. Face Brick

Light face brick shall be #W-255 Brushtex Gray as manufactured by Burns Brick Company.
Dark face brick shall be #W-764 Brushtex Brown as manufactured by Burns Brick Company.

b. Jumbo Brick

Shall conform to the requirements of the latest specifications for Jumbo Brick Grade MW by Southern Brick and Tile Manufacturers Association except that no restriction shall be placed on the color and chippage as long as other requirements are met. Nominal sizes shall be 4" x 4" x 12", 4" x 8" x 12" and 4" x 4" x 8" closure.

c. Common Brick

Shall conform with A.S.T.M. specification C-62 Grade MW.

d. Installations

All high absorption brick and all brick laid in other weather shall be wetted. The units shall be wetted from three to four

hours before they are used and the method should be such as to insure that each unit is uniformly wetted. All units shall be free from water adhering to their surfaces when they are placed in the wall. Do not lay brick in freezing weather or when such weather is imminent before mortar has set. Lay brick plumb and true to lines. Lay outside face of brick to a line. Lay inside face of brick to a line also. Lay out courses with a story rod and space accurately. Hold vertical joints true to a line by adjusting width of head joint to take up variations in brick size. Bond shall be plumb and adjusted to work out evenly with full unit. Closure of utilities at openings and corners. Lay brick in full mortar bed, vertically and horizontally, shoving brick units into place. When mortar has become thumb-print hard, all exposed horizontal joints shall be tooled slightly concave with a tool not less than 30" long. All exposed vertical joints shall be tooled slightly concave with standard length tool. Joints not exposed may be struck flush. Tool joints in such a manner as to squeeze mortar back in joint. Step back brick to permit joining of new work. Tooth only when approved by Architect. Where fresh masonry joins masonry that has set the exposed surface of set masonry shall be cleaned, roughened and lightly wetted, so as to obtain the best possible bond with the new work. All loose brick and mortar shall be removed. Keep air spaces in cavity walls clean of mortar droppings or trash. Protect newly laid brickwork from rain and consequent streaking of brick with mortar stains. Upon completion of brickwork, clean all exposed brick. Use stiff brushes and water. If this does not suffice, thoroughly clean the surface of all excess mortar and foreign matter with a solution of Sure-Klean No. 101 Lime Solvent and water, as manufactured by the Process-Solvent Company, strictly in accordance with recommendations of the manufacturer.
All exposed brick on exterior of building shall be face brick except where common brick is shown on the drawings. All other brick shall be Jumbo brick except that three(3) courses of common brick shall be laid continuously on inner 8" wythe of exterior walls as the support bed for steel joists Where face brick is used on 12" walls provide 8" Jumbo brick backup. All 12" walls, on which face brick is not required, shall be made up of 4" wythe and 8" wythe Jumbo brick. All brick shall be laid in common running bond with no headers. All 8" brick walls shall be laid with single wythe of 8" Jumbo brick.
On all exterior walls pour mortar mix in joint between exterior and interior wythe filling joint full and solidly. Pour to be made every 4" vertically in order to insure a completely filled joint for watertightness.

2. Hollow Clay Partition Tile

Shall conform with ASTM Specification Designation C-56-56 of same size as existing. All sides of clay tile shall be grooved to receive mortar except that all exposed faces of clay tile shall be smooth.
Tile work shall be built plumb to lines, laid in full beds of mortar, with vertical joints breaking approximately at the middle of the course below. Each course of tile shall be properly bonded at corners and intersections and be anchored to other masonry. Tile shall be built with cores horizontal or vertical at Contractor's option. No cells shall be left open in wall surfaces. Tile work terminating against ceiling slabs shall be wedged tight and have joints slushed full of mortar.

3. Ceramic Veneer

Materials and installation shall be in strict accordance to applicable requirements of the Standard Specifications for Furnishing and Erection of Ceramic Veneer by the Architectural Terra Cotta Institute. All ceramic veneer shall be the

adhesion type except the coping which shall be the anchored type. Ceramic coping shall be the open back hand made type. Coping shall be anchored in place with 1/4" round steel rods 8" long with 2" legs at each end. Provide two anchors per each piece of coping. Color of mortar shall match color of mortar specifed for all other masonry work.
No vertical joints will be allowed on the front face of the columns and the external corners of the columns.
All ceramic shall be satin finish and smooth surface, similar to Federal Seaboard Terra Cotta Co's. #G.N. 53.
Submit complete detail shop drawings of all ceramic veneer work to Architect for approval.

4. Stone Coping

Shall be fabricated from 3,000 lb. concrete as detailed. Color and texture shall match sample retained in the office of the Architect. Sample as manufactured by the Cut Art Stone Company of Savannah, Georgia. Shall be fabricated in 4'-0" lengths with two holes near each end on the bottom to receive 1/4" round x 6" long steel dowels. Joints shall be 1/4" wide and shall be raked out 1/2" to receive caulking specified in Division 19. Install stone coping in full mortar bed plumb and true to a line, anchoring securely in place. After all copings are in place apply a uniform saturating coat of Truscan Super Par-Seal with silicone over all exposed surfaces.

5. Splashblocks

Shall be fabricated from 3,000 lb. concrete as detailed on the drawings with a steel troweled finish. Set in place as required.

6. Flashing Blocks

Shall be the Natco Raggle Blocks as manufactured by the Natco Corporation. Install as required plumb and true to a line anchoring securely in place.

7. Vitreous Clay Tile Copings

Shall be Lap-Lok Wall Coping by Robertson Clay Products Company. Install as required plumb and true to a line anchoring securely in place with steel dowels and mortar. Dowels to be 1/4" round steel rods 8" long with 2" leg at each end. Provide 2 anchors per piece of coping.

8. Masonry Mortar

Mortar for all masonry units specified above, except ceramic veneer shall conform to the Proportion Specifications - Type "N" mortar in tentative specifications for Mortar for Unit Masonry, A.S.T.M. Designation C270, using Type I Portland Cement shall be equal to Coosa-Gray by Coosa Cement Company.

DIVISION 8

ROOFING AND SHEET METAL WORK

8-A SCOPE

Rigid Insulation, Built-Up Roofing and Gravel, Gravel Stops, Metal Flashing, Gutters and Leaders, Fabric Thru-Wall Flashing.

8-B INCIDENTALS

1. Provide written Guarantee Bond to Owner that all built-up roofing and base flashing will be free from defects of material and workmanship for a period of 20 years. Guarantees shall be in such form as to obligate Contractor to make good requirements of guarantee obligations.

2. Materials and installations of built up roofing are as specified by Johns-Manville Corporation. Equal materials and installations, approved by the Architect, of Ruberoid Company, Philip Carey Mfg. Co., and Fiberglas Corp., will be acceptable.

8-C MATERIALS AND INSTALLATIONS

1. Rigid Insulation

Shall be Weathertite Roofinsul, 2" thick, impregnated with asphalt, as manufactured by Johns-Manville Corp. Cants shall be 1½" thick Ferox-treated insulating fiberboard as manufactured by Celotex Corp. Install in strict accordance with Johns-Manville Corp. Specifications No. 1051 on dead level surface. 1 3/4" thick Foamglas by Pittsburg-Corning imbedded to the roof deck in hot asphalt will be acceptable. Installation of Foamglas to be in strict accordance to recommendations of Pittsburg-Corning.

2. Built Up Roofing and Gravel

For all dead level roofs shall be 4 ply Aquadam Rag Felt Roof with gravel surfacing as specified, and installed in strict accordance with Johns-Manville Corp. Specifications #801.

Base Flashing shall be Johns-Manville Corp. Asbestile Flashing System with Super A Base and Cap Flashings as specified and installed in pages 173 and 174 of the Johns-Manville Pocket Edition.

3. Gravel Stops

Shall be fabricated from 26 gauge galvanized iron formed with hemmed edge drip.

Install plumb and true to a line, anchoring securely in place. Before installing gravel stops, provide envelope in roofing by lapping the two bottom layers of felt over the two top layers, mopping each layer firmly in place. Then anchor gravel stops on top of envelope, imbedding firmly in roofing putty. Apply two layers of #15 asbestos felts directly over gravel stop, mopping each layer securely in place.
Lap all joints in gravel stops a minimum of 4", buttering fully with roofing putty.
Gravel stops shall be in minimum 8'-0" lengths.
Paint gravel stops as required for gutters and leaders below.

4. Metal Flashing

a. Metal cap flashing shall be 16 ounce cold rolled copper formed

DIVISION 9

HOLLOW METAL WORK

9-A SCOPE

Doors, Door Frames

9-B INCIDENTALS

1. Manufacturer

All hollow metal work of this Division shall be factory built products of a recognized manufacturer specializing in the production of the doors and frames.

2. Furniture Steel

All hollow metal work of this Division shall be of the first quality furniture steel, cold rolled, fully pickled, double annealed, and free from all defects.

9-C MATERIALS AND INSTALLATIONS

1. Doors

Provide flush metal doors 1 3/4" thick as required. Doors shall be constructed of two plates not less than 16 ga. steel, assembled and reinforced with 16 ga. vertical stiffeners, spaced not over 6" horizontally and continuous top to bottom of door. Stiffeners spot welded to both exterior plates. All doors to be insulated for noise and shall be asbestos lined where necessary to meet Underwriters' requirements for Label doors. Label doors to be constructed according to requirements of NBFU and shall bear their label of acceptance and approval. Suitable mortises and reinforcements shall be provided for locks, hinges, door checks and other hardware items. After assembly, all metal is to be thoroughly cleaned of rust, oil and grease and given a shop coat of rust resistant metallic primer. Templates for hardware as specified shall be delivered to plant of door manufacturer. Provide metal trim for securing glass and metal grilles in doors where required. Doors shall fit firmly against door stop of frame on all sides when in closed position. Top and bottom edges of door to receive prime coat of paint before final installation. Install all hardware specified strictly in accordance with the recommendations of the hardware manufacturer.

2. Door Frames

Shall be 16 ga. steel unit combination frames for all interior door openings. All frames shall be mortised, reinforced, drilled, tapped for all hardware. All miters or joints shall be continuously welded and ground smooth as to be invisible when painted. All frames in masonry walls shall be equipped with a minimum of three 20" long adjustable corrugated 16 ga. anchors on each side where attached to masonry. Anchors and floor clips shall be of same gauge as door frames. All frames shall have a shop coat of rust resistant metallic paint. Install door frame firm and true to a line, anchoring securely in place. Anchor clip angles at bottom of frame securely to floor with 3/8" expansion bolts. Where frames anchor to other metals, butter all contacts with mastic before anchoring.

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DIVISION 10

PLASTERING

10-A SCOPE

Furring Channels, Lathing, Metal Beads, Hangers, Tie Wire, Access Panels, Metal Bases, Gypsum Plaster, Portland Cement Lime Plaster, Ceiling System, Wall Furring System, Lathing Accessories, Gypsum Plastering, Portland Cement Lime Plastering.

10-B INCIDENTALS

1. General Provisions

In cold weather the temperature of the building shall be maintained a uniform rango above 55° for an adequate period prior to the application of lathing and plaster, while the lathing and plastering is being done and after the plaster is dry. The heat shall be well distributed in all areas. When required, heat shall be furnished by the General Contractor. Ventilation shall be provided to properly dry the plaster during and subsequent to its application. This can be accomplished by keeping windows open approximately 4". If glazed sash are not in place and the building is subject to hot, dry winds or temperature differentials from day to night of 20°F or more, openings shall be screened with cheese cloth or similar materials.

2. Grounds

The minimum thickness of plaster over metal lath shall be 3/4" thick and over masonry walls shall be 5/8" thick. Minimum thickness of fireproofing of steel shall be 1 3/8" over metal lath.

3. Patching

Point up around trim and other work. Cut out and patch defective or damaged plaster. Patching of plaster shall match existing work in texture and finish and joinings with plaster previously applied shall be flush and smooth.

4. Unless specifically noted otherwise, all metal materials listed in this Division shall be protected by a coat of rust inhibitive paint after fabrication and bundled or packaged with positive identification.

5. Completion

At the completion of the finish plaster work, clean all plaster from beads, screeds, metal trim and adjoining surfaces, leaving work clean and ready for decoration by others. Remove all plaster rubbish from building and site, leaving floors broom clean.

6. Materials in this Division are as specified by U.S. Gypsum Company. Installation of all such materials shall be in strict accordance with the recommendations of U.S. Gypsum Company. Equals as approved by the Architect will be acceptable.

10-C MATERIALS AND INSTALLATIONS

1. Furring Channels

Shall be 16 ga. cold rolled steel channels as follows:

3/4" channels weighing not less than 300 lbs. per 1,000 lineal ft. and 1 1/2" channels weighing not less than 514 lbs. per 1,000 lineal feet.

2. Lathing

   a. Metal lath for ceilings and fireproofing of girders shall be Colorite 3/8" Riblath.

   b. Metal lath for walls shall be Colorite Diamond Mesh 3.4 lbs.

   c. Where Portland Cement Lime Plaster is used metal lath shall be galvanized.

3. Metal Beads

   a. Casing Beads: #66 expanded flange square.

   b. Corner Beads: 1-A expanded corner bead.

4. Tie Wire

   16 ga. galvanized annealed steel wire.

5. Access Panels

   For plaster suspended ceilings shall be USG Access Panels. For sizes and locations, refer to Mechanical Drawings.

6. Metal Bases

   Metal Bases shall be U.S.G. 2½" high metal complete with masonry base clips for masonry walls and single base clips for furred walls.

7. Gypsum Plaster

   a. Base coat plaster shall be Red Top Cement and sand aggregate meeting the requirements of A.S.T.M. Designation C-35-537, inorganic aggregate for use in interior plastering.

   b. Finish coat plaster shall be Gypsum guage lime putty finish made from Ivory pressure hydrated lime and Red Top Structo-Guage Plaster.

   c. Water shall be clean, fresh and suitable for domestic consumption.

   d. For fireproofing of steel, base coat plaster shall be Red Top Structo-Lite Plaster.

8. Portland Cement Lime Plaster

   a. Portland cement shall meet A.S.T.M. Designation C-150-47 and lime shall be Mortaseal.
   Sand shall be clean and sharp and meet requirements of American Standards Association Specification A42-2.

   b. Finish coat for exterior shall be Oriental Exterior Color Finish. Standard color to be selected by Architect.

   c. Finish coat for interior shall be Cement and Silica sand flat finish.

9. Plaster Ceilings

   Install metal rib lath full area on bottom of all steel joists anchoring securely in place with mid-West attachment clips at 12" O.C. along each joist. Long length of rib-lath to be perpendicular to length of steel joists.
   Provide 1½" and 3/4" furring channels around ducts on suspended ceilings and on furred area over main entrances as required.

anchoring securely in place with 12 guage hanger wires and wire ties. Channel framing shall be plumb and true to a line. 1½" channels to be installed at a maximum of 4'-0" O.C. and 3/4" channels to be installed at a maximum of 16" O.C.
Install rib-lath over channel framing anchoring securely in place with wire ties.
Install rib-lath on all steel girders wrapping girders on bottom and sides and anchoring securely to bottom of floor and roof concrete slabs with Concrete nails.
All side edges of rib-lath shall be wire-tied together midway between each furring channel.
Metal lath on ceiling shall turn down 4" on walls at all sides and shall be wire tied to wall metal lath or nailed to masonry wall.

10. Wall Furring System

Where plaster is required on inside face of exterior masonry walls install 3/4" channels vertically from floor to ceiling at 16" O.C. anchoring securely to wall with adjustable wall brackets at 36" O.C. but not over 4" from each end of each furring channel. Furring channels shall be installed plumb and true to a line.
Install diamond mesh metal lath anchoring securely to furring channels with wire-ties. Long length of metal lath to be perpendicular to long length of furring channels. Side edges of metal lath to be lapped 1" and wire-tied together midway between each furring channel.
Adjustable wall brackets to be inserted in joints of masonry wall while masonry wall is being installed. Install metal base and masonry base-clips and grout solidly continuously behind metal base before installing metal lath. Metal bases to be plumb and true to a line. On masonry walls on which plaster is applied directly to, install metal bases same as specified above. Install 1½" and 3/4" furring channels as required for the handrails and soffit of the merchandising stairs plumb and true to a line, anchoring rigidly in place. Cover furring with Diamond Mesh lath wire-tieing securely in place.

11. Lathing Accessories

On both wall and ceiling surfaces install corner bead at all exterior corners. Install casing beads where required by the drawings. Anchor all accessories securely in place in accordance with recommendations of U.S. Gypsum Company.

12. Gypsum Plastering

For hand mixing the mixing boxes shall be water tight and thoroughly cleaned of all set or hardened material. All tools and equipment shall be cleaned after mixing each batch. Do not mix more materials than can be used in one hour. Mechanical mixing is permitted provided all precautions are taken as required for hand mixing above. No materials that have partially set shall be retempered or used. Red Top Cement Plaster shall be mixed in the proportions of 1 part of Gypsum to not more than 2½ parts of sand by weight for gypsum lath bases and 1 part of gypsum to not more than 3 parts of sand by weight for masonry bases. In hand mixing, the gypsum and sand shall be mixed dry to a uniform color at one end of the box, hold into the water at the other end, and thoroughly mixed to a proper consistency. In mechanical mixing put the approximate amount of water required in the mixer; then, while the mixer is in continuous operation, add approximately half the amount of sand required. Add all the plaster and then add the remainder of the sand. Mix to the proper application consistency, adding water if necessary, and dump the entire batch. On wall surfaces the base (first) coat shall be applied with sufficient material to form a good bond on the wall and ceiling surfaces and to cover well, and

then doubled back to bring the plaster out to the grounds. Straighten to a true surface with red and darby and leave rough ready to receive the finish (second) coat. Where metal lath is the plaster base three coat plaster work shall be used. Apply a full scratch coat, cross rake and allow to set. Then apply brown coat to bring plaster out to the grounds. Straighten to a true surface with darby and leave rough ready to receive the finish coat. Lime putty shall be prepared as follows: Ivory finishing lime shall be mixed with clean water only, using approximately 5½ to 6 gal. per bag. The putty may be prepared by overnight soak or by mixing by hand or by machine. Run mixer for sufficient time to get a smooth, thoroughly mixed putty which can be used immediately, or run into a box for use as required. When stored in a box after mixing, do not permit putty to get crusty or to dry out. Mixing tools and equipment must be clean. Finish coat shall be applied over the partiallydry base or brown coat and shall be scratched in thoroughly and immediately and doubled back to a true, even surface. Thickness of finish coat is to be 1/16" to 1/8". Finishes shall be water troweled during set to provide a smooth, dense surface, free of irregularities and blemishes.
Finish coat shall be medium hard, mixed in proportions of 100 lbs. of Structo-Guage to 400 lbs. or 34 gallons of lime putty except that in spaces 007, 008, 109, 110, 111, and 207 the finish coat shall be hard, mixed in proportions of 100 lbs. of Structo-Guage to 200 lbs. or 17 gallons of lime putty.
For fireproofing the steel girders and interior steel columns mix Structo-Lite with water in strict accordance with recommendations of U.S. Gypsum and install on metal lath around all the steel girders and interior columns a full 1 3/8" thick from the face of the lath. Install in number of coats as necessary to build up fireproofing to the required thickness for a 3 hour rating.

12. Portland Cement Lime Plastering

All mixing requirements and installation procedures are the same as Item No. 11, Gypsum Plastering, above, except as noted below:

The scratch (first) coat shall be mixed in the proportions of one bag of Portland Cement to two bags of Mortaseal, or 2 cu. ft. of lime putty in 7½ cu. of sand. Add approximately 2 lbs. of fiber or hair to each mix of above proportions. The brown (second) shall be mixed in the proportions of one bag of Portland cement to two bags of Mortaseal, or 2 cu. ft. of lime putty in 9 cu. ft. of sand. Scratch coat shall be applied in full 3/8" coat with sufficient pressure to force it through and completely imbed the metal reinforcement. Cross scratch, and after set damp cure not less than 48 hours. Brown coat shall be applied over the dampened scratch coat in a full 3/8" coat with sufficient pressure to form a good bond rodded level and left rough, using a broom if necessary where color finish is installed. After set damp cure at least 48 hours before applying the finish. Oriental exterior colored finish shall be mixed and applied in strict accordance with the manufacturer's directions on all exterior areas which plaster is called for. Color and texture are to be designated and approved by the Architect. In all interior areas where cement plaster is called for the finish coat shall be mixed in the proportions of 100 lbs. of Portland Cement, 200 lbs. of dry fine silica sand and 25 lbs. of Mortaseal. Finishes shall be floated with a shingle, wood, carpet, or rubber float, to bring aggregate to the surface and produce a finish free of slick spots, cat faces and other blemishes. Do not use water while floating colored finishes.

DIVISION 11

CARPENTRY

11-A SCOPE

Wood Nailers and Blocking, Wood Doors, Wood Trim, Plywood, Wood Duckboards, Wood Studs, Batt Insulation, Advertising Signs.

11-B INCIDENTALS

1. Delivery and Protection of Materials

Stack lumber properly to insure ventilation and protection from weather and other damage. Do not bring wood finishing materials or millwork, including wood doors, into building until concrete, masonry and plaster are thoroughly dry. Follow door manufacturers' recommendation for storing wood doors on job before installing.

2. Rough Carpentry

Shall be first class in every respect. Provide and install all necessary blocking and rough framing for all finish carpentry work and work of other trades. Frame properly, fit closely and set accurately to required lines and levels and secure rigidly in place.

3. Finish Carpentry

Shall be first class in every respect. Set straight, true, plumb, level, in perfect alignment and fit closely. Miter all corners. Set all nailheads. Install all finish hardware required. Fit carefully and attach securely. Do not mar existing work. Hand smooth all finish work at job. Remove all mill marks and leave ready for paint. Protect all finish work after erection.

11-C MATERIALS AND INSTALLATIONS

1. Wood Nailers and Blocking

Shall be #2 common southern yellow pine, sound and free from warp, and shall be pressure treated with Celcure as manufactured by the Longleaf Lumber Company. Lumber shall be Celcured, using a minimum of 3/4 lb. dry salt (copper sulphate) per cu. ft. of wood. Install as required, anchoring securely in place, straight and true to a line, countersinking all bolts where necessary. Apply drench coat of Celcure in all holes bored in wood nailers for bolts. Where bolting is not required anchor securely to masonry with masonry nails.

2. Wood Doors

Hollow core doors shall be the Institutional Door as manufactured by United States Plywood Corp. Solid core doors shall be the Weldwood Staved Lumber Core door as manufactured by United States Plywood Corp. Faces shall be rotary cut unselected gum. All wood doors shall be interior grade. Provide openings in doors for grilles, and light openings as required. Reinforce all edges of openings in hollow core doors with solid wood blocking. Provide all necessary birch wood moulding and stops, fitted and tacked in door at factory, ready to receive grilles and glass. Doors shall be fully guaranteed to equal or exceed requirements of the National Door Manufacturers' warranty. All doors shall be delivered to job in individually paper wrapped and dust-tight packages.

All doors must be delivered to the job in individually paper wrapped dust-tight packages. Install all wood doors, fitting into openings as required. When door height has to be reduced,

cut equal amounts from the top and bottom and under no circumstances cut more than 1" from each end. After all cuts and fittings have been made, immediately remove door from opening and apply sealer coat as specified in Painting Division to the top and bottom edges of door before installing permanently in opening. All doors warped or out of line 1/4" or more shall be replaced at no cost to the Owner before acceptance by the Owner.

3. Wood Trim

All exposed wood trim shall be "B" and better Douglas Fir, sound and free from warp except that all hardwood caps on handrails and hardwood trim in show window framing shall be select White Oak sound and free from warp.

Refer to page 11-1, paragraph 3, Finish Carpentry for installation.

4. Plywood

All plywood shall be Douglas Fir with appearance grade A on all exposed faces. Refer to page 11-1, paragraph 3, Finish Carpentry, for installation.

5. Wood Duckboards

Shall be fabricated from #1 Common Southern Yellow Pine, sound and free from warp, which shall be pressure-treated with Celcure as manufactured by Longleaf Lumber Co. Lumber shall be Celcured, using a minimum of 3/4 lb. dry salt (copper sulphate) per cubic foot of wood. Fabricate as required and set in place as shown on the drawings. Frame properly, fit closely and set accurately to required lines and levels.

6. Wood Studs

All studs including any unexposed rough framing lumber shall be #2 Douglas Fir, sound and free from warp. All framing in contact with concrete or masonry shall be Celcured as specified above for wood duckboards. Refer to page 11-1, paragraph 2, Rough Carpentry, for installation.

7. Batt Insulation

For ceiling over main entrances shall be 3" thick Red Top Reflective Insulating Wood Blankets as manufactured by U.S. Gypsum. Install as required, in accordance with recommendations of U. S. Gypsum Company.

8. Advertising Signs (Two required)

Fabricate as detailed in Detail No. 66 bound in this specification, plumb, true and rigid. All lumber shall be #2 Common Southern Yellow Pine sound and free from warp. All plywood shall be exterior grade Douglas Fir, sound one side. Install, anchoring securely in place, over each temporary protective covered walk at each entrance to store at the beginning of the demolition.

Signs to remain in place for the duration of the construction.

DIVISION 12

MISCELLANEOUS ITEMS

12-A SCOPE

Roll up doors, Steel stairs, Toilet partitions, Transite, Concrete Sealer, Weather stripping, Saddles, Steel ladders, Porcelain enamel signs, Aluminum handrails, Waterproofing, Vent sleeves, Boiler room doors, Boiler room vent, Roof scuttle, Miscellaneous steel, Miscellaneous anchoring devices, Fire extinguishers, Door grilles, Masonry reinforcing. Hoistway opening frames and sills.

12-B OMITTED

12-C MATERIALS AND INSTALLATIONS

1. Roll Up Doors

Shall be standard type 150-MB as manufactured by The R.C. Mahon Company. Curtains shall be galvanized steel with rolled steel bottom bar. Guides shall be rolled steel. Provide slide bolts and hinged hasps on each side of door as detailed. Provide padlock and keys for one side. Provide type 112 threshold 6" wide with Ferrogrit as manufactured by Wooster Product, Inc. Anchor threshold securely in place with butterfly anchors, 1'-0" O.C. Provide steel angle corner guards as detailed. Install angle guards, as required, anchoring securely in place.
Install door, as required, strictly in accordance with recommendations of door manufacturer, anchoring securely in place.

2. Steel Stairs

Shall be standard steel stairs as detailed on the drawings as manufactured by Grossman Steel Stair Corporation. Install as required anchoring securely in place according to recommendations of stair manufacturer and approved shop drawings.
Provide shop coat of paint on all steel surfaces.
Service stairs shall be complete with stringers, carriers, risers and undertreads, platforms, newels and handrails. Merchandising stairs shall be complete with stringers, carriers, risers and undertreads and platforms.

3. Toilet Partitions

Shall be Academy Type overhead braced, galvanized, bonderized, with baked synthetic enamel as manufactured by The Sanymetal Products Company. Shall be complete with standard chrome hardware. Colors as selected by Architect. Install, where required, anchoring securely in place, strictly according to recommendations of partition manufacturer.
Provide clothes hook and bumper and Roll Type paper holder in each compartment.

4. Trnasite

Install 1/4" thick flat Transite as manufacturer by Johns-Manville Corporation on both sides of doors #25 with a waterproof adhesive. Waterproof adhesive to be as approved by the Architect.

5. Concrete Sealer

On all exposed concrete floors install two coats of Clear Bond Sealer, manufactured by Guardian Chemical Company, strictly in accordance with recommendations of sealer manufacturer to prevent dusting of concrete floors.

6. Weatherstripping

Where required install #53-S weatherstripping, as manufactured by

Zero Weatherstripping Company, on bottom of the doors. Shall extend full width of door and make continuous firm contact with aluminum saddle. Shall be installed according to recommendation of weatherstripping manufacturer.

7. Saddles

Shall be aluminum #913-C as manufactured by Chamberlain Company of America. Install, aa required, anchoring securely in place. Shall be installed to work efficiently with weatherstripping. Fill entire bottom area of saddle with caulking compound before installing.

8. Steel Ladders

Fabricate as detailed on the drawings. Provide shop coat of paint on all surfaces. Install plumb and true anchoring securely in place with 1/2" round through - bolts and washers, 3'-0" O.C. on each side.

9. Porcelain Enamel Signs

Signs on wall over each main entrance shall be furnished and delivered to the job by the Tenant. Contractor to install, as required, anchoring securely in place according to recommendations of the tenant and the sign manufacturer.

10. Aluminum Handrails

Fabricate as detailed on the drawings from component parts as manufactured by Blumcraft Company and by Newman Brothers whose catalogue numbers appear on the drawings. Shall be fabricated and rigid and plumb and true to a line. Finish of all aluminum shall be polished Alumilite in accordance with Alcoa Specs 204 R.I. No field welding will be allowed.

11. Waterproofing

Shall be Nervastral P.E.T. in 6 mils thickness as manufactured by Rubber and Plastic Compound Company, Inc. Install over entire area under all concrete slabs on grade, lapping all joints a minimum of 6". Concrete must be poured in the same direction as the overlap of the joints. Avoid puncturing membrane. Before pouring concrete any punctured membrane shall have another layer of membrane installed over hole a minimum of 12" from all edges.

12. Vent Sleeves

Fabricate as detailed from 20 guage galvanized steel complete with galvanized 16 x 14 inch mesh insect screen. Provide shop coat of paint. Install as required anchoring securely in place.

13. Boiler Room Doors

Doors shall be C-label #647 Flat Surface Steel Fire Doors. Provide #2506-2 hinges and three point latch with R.W. #643-4D closers on all doors except on the inactive leaf of the pair of doors which shall have 2 point Chremone bolts. On the pair of doors provide provisions for padlocking on exterior side. On all doors provide operating handle on opposite side of the three point latch. Provide R.W. #394 C-label Channel iron door frame for all doors.
All above doors, hardware and frames to be as manufactured by Richard Wilcox Manufacturing Company.
Install all doors, hardware and frames in strict accordance to recommendations of fire-door manufacturer.

14. Boiler Room Vent

Shall be #45-AUT as manufactured by H.H.W. Bergmann Company complete with screen as detailed on the drawings. Install as required anchoring securely in place.

Provide shop coat of paint in all surfaces.

15. Roof Scuttle

Shall Type "S" Smoke Hatch as manufactured by the Bilco Company. Cover and curb shall be 14 guage galvanized steel and cover liner shall be 22 guage galvanized steel. Provide shop coat of paint. Install as required in accordance with recommendations of roof scuttle manufacturer.

16. Miscellaneous Steel

All miscellaneous structural steel now shown on the structural drawings and not specified otherwise, but indicated on architectural drawings, shall conform to A.S.T.M. Designation A-7, latest edition.

All exposed welds shall be ground smooth. Provide shop coat of paint for all steel. All fabrication shall be plumb and true to a line. Install all miscellaneous steel work where required, anchoring securely in place. All exposed steel field welds shall be ground and dressed smooth and immediately given a coat of paint.

17. Miscellaneous Anchoring Devices

Provide all metal anchor bolts, anchors, clips, bolts, nuts, washers, expansion shields, toggle bolts, straps, etc., necessary to complete work of all divisions. Deliver to other trades as needed for installation.

18. Fire Extinguishers

Type A shall be stainless steel 2½ gal. pressurized water type Fyr-Fyter, Model No. 94-23. Type B shall be 15 lb. CO_2 type Fyr-Fyter Model No. 35-1. All fire extinguishers shall be fully charged and ready for use. Provide proper hooks for hanging fire extinguishers on wall where required. Recessed cabinets shall be Fyre-Fyter Model No. 480 with plate glass panel with grey prime coat baked on finish. All above as manufactured by the Fyr-Fyter Co. Install fire extinguishers on walls where required, anchoring hooks securely in place. Install recessed cabinets securely in masonry wall where required. Bottom of fire extinguishers to be 3'-4" from floor unless otherwise noted.

19. Door Grilles

Shall be the A.F. Grille with V.F. Sight Tight Care with #14 Finish as manufactured by the Barber Colman Co. For size and locations see the drawings. Install in doors where required, anchoring securely in place with wood moulding furnished by the door manufacturer.

20. Masonry Reinforcing

Shall be Dur-O-Wall as manufactured by Dur-O-Wall Products Company, and shall be standard weight. Reinforcing shall be 8" wide and shall be installed continuously in every 4th. course of all exterior 12" wide masonry walls. Install 6" wide reinforcing in every 4th. course of all exterior 8" wide masonry walls. Install in strict accordance with recommendations of reinforcing manufacturer.

Where required on drawings install #EAS-G24 Bee-Hive Reglets and #CBA-G14 corrigated brick anchors as manufactured by Gateway Engineering Company. Anchors to be installed in reglets every 4th. course of masonry.

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21. Hoistway Opening Frames and Sills

Frames for freight elevator openings shall be fabricated from 12" steel channel at 20.7 lbs. Provide three 1/2" round by 12" long steel bar anchors welded to each jamb for anchoring in masonry. Frames to be mitered and welded at each corner. Grind welds smooth. Provide shop coat of paint on all surfaces of steel. Sills shall be Type 100 with **Ferrogrit** as manufactured by Wooster Products Inc. Sills to be 3/8" x 12" wide. Install as required anchoring securely in place with butterfly anchors and steel flat head countersunk screws. Frames to be installed plumb and true to a line anchoring securely in place.

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DIVISION 13

FREIGHT ELEVATOR

13-A SCOPE

Freight Elevator.

13-B INCIDENTALS

1. The freight elevator shall be as manufactured by Rotary Lift Company, Otis Elevator Company or Montgomery Elevator Company. No other elevator company will be acceptable.

2. GENERAL
This specification is intended to cover the complete installation of (1) Electric Oil-hydraulic (electrically operated hydraulic elevator using oil as the fluid medium) freight elevator. The general contractor is to list in his bid the make of elevator proposed and the allowance set up for same. All work including the accessory items listed herein shall be performed in a first-class and workmanlike manner, and is to include all materials and work as shown on the drawings or described hereinafter.

   In all cases, where a device or part of the equipment is herein referred to in the singular number, it is intended that such reference shall apply to as many such devices as are required to complete the installation.

   All work shall be performed in accordance with the National Electrical Code, American Standard Safety Code and such State and Local Codes as may be applicable.

3. DRAWINGS
Before any work is done, the Elevator Contractor shall prepare all drawings necessary to show the general arrangement of the elevator equipment. These drawings must be properly approved before installation of the Elevators.

4. WORK NOT INCLUDED
The following work shall be performed under other Divisions of the Specifications.
   1. Complete and legal hoistway, pit and machine room of dimensions and specifications required. Door frames and sills for freight elevators.
   2. An Underwriters' approved light outlet in the center of the side of the hoistway as shown on drawings. Lighting in pit.
   3. Extend the electrical service from the power main through a fused safety switch of ample capacity to the terminals of the power unit controller.
   4. Cutting and/or alteration of walls and painting as required.
   5. Adequate supports for guide rail brackets and installation of inserts, if used.
   6. Electric current during erection and testing of equipment.
   7. Pit ladder.

5. PERMITS AND SALES TAXES

   All permits, inspection fees, sales tax and licenses necessary for the execution of the work shall be secured and paid for by the Elevator Contractor.

6. PAINTING

   All exposed metal work furnished under these specifications, except as otherwise specified, shall be painted properly after installation, by the Elevator Contractor.

7. GUARANTEE

The Elevator Contractor shall guarantee that the materials and workmanship of the apparatus installed by him, under these specifications, shall be first class in every respect; and that he will make good any defects, not due to ordinary wear and tear or improper use, which may develop within one year from the date of completion of the installation.

In addition to the other requirements, inspections, tests and remedies herein provided, upon completion of the elevator installation and before final approval and final payment, the Elevator Contractor shall make, in the presence of the Architect or his designated representative, a running speed test with full maximum load on the elevator car to determine whether the elevator equipment, as installed, meets the speed, capacity and all other requirements of the specifications.

In the event the equipment does not meet all requirements of the specifications, the Elevator Contractor shall promptly remove from the premises all work condemned by the Architect as failing to conform to the contract, and shall promptly replace and re-execute his own work in accordance with the contract, without expense to the Owner, and shall bear all expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

If the Elevator Contractor does not remedy such condemned work within a reasonable time, fixed by written notice from the Architect, the Owner may correct such condemned work at the expense of the Elevator Contractor and withhold such cost from final payment under the contract price. In the event the remainder due under the contract price is insufficient to cover such cost, the Elevator Contractor shall, immediately upon request, reimburse the Owner in full.

8. MAINTENANCE

The Elevator Contractor shall furnish maintenance and call-back service of the equipment provided by him for a period of 3 months after completion of his work. This service shall include regular examinations of the installation by competent and trained employees of this Contractor; and shall include all necessary adjustments, greasing, oiling, cleaning, supplies and parts to keep equipment in good operation; except such parts made necessary by misuse, accidents or negligence not caused by this Contractor. All work to be performed during regular working hours.

13-C MATERIALS & INSTALLATIONS

1. FREIGHT ELEVATOR

A. TRAVEL (See other section for future travel).
Travel of the car shall be from basement floor to first floor, stopping at 2 landings and serving 2 openings, a total rise of 16 ft., 0 in.

B. CAPACITY AND SPEED
The elevator shall have a net lifting capacity of 6,000 pounds in addition to the weight of the car and appurtenances specified herein. The elevator car shall travel at a minimum speed of 65 feet per minute under full contract load.

C. POWER SUPPLY

The power supply for the Elevator apparatus will be 220 Volts 3 Phase 60 Cycles, Alternating Current. The lighting supply will be 110 Volts, 60 Cycles, Alternating Current.

D. CAR PLATFORM AND SLING

The overall dimension of the car platform shall be 8'-0" wide by 10'-0" deep.

Hoistway to accommodate equipment shall be 9'-6" wide by 10'-10" front to back clear and plumb.

The platform shall have a fabricated frame of formed and structural steel shapes, gusseted and rigidly welded. Flooring shall be non-skid floor plate.

The sling shall consist of heavy steel channel stiles properly affixed to a steel crosshead and bolster, with adequate bracing members, to remove all strain from the car enclosure.

Steel bumper plates shall be affixed to bottom of bolster channels, and a platen plate with clamps and cap screws to be furnished for fastening sling to plunger.

The car sling and platform shall be designed and constructed to comply with loading classification "A" which covers general freight handling, consisting of small increments (not over 25% of the rated capacity). Maximum eccentricity of loading is based upon one-half the rated capacity distributed over one-half the platform area.

E. CAR ENCLOSURE

The car shall be enclosed on 3 unused sides to a height of 7'-6" with #14 gauge steel panels not greater than 36" in width, with proper cutout in position shown on drawings to receive car operating station.

A solid metal top shall be provided over the car, with approved safety hinged section.

Car enclosure shall be practically flush inside and shall allow a net usable floor area of 7'-8" wide by 9'-2" deep, with a clear headroom of 7'-6" .

The rear wainscot panel shall be designed for easy removal to allow the installation of a car gate when the future floor is served. The wainscot design shall be such that no cutting of the panels or car top will be necessary when the gate is installed.

F. MANUALLY OPERATED CAR GATE(S)

A vertical rising, manually operated, counterbalanced gate shall be furnished and installed on (1) entrance of the car. Each gate shall be equipped with an electrical contract to prevent operation of the elevator unless gate is in closed position.

G. CAR LIGHT

A suitable light fixture shall be furnished and installed in the elevator car, and shall be connected to a light switch in the car push-button station, and to an approved outlet provided in the hatchway.

H. CAR GUIDES AND GUIDE SHOES

Guides for the elevator car shall be machined steel elevator guide rails, properly fastened to the building structure with steel brackets. The car stile will be fitted at top and bottom with machined guide shoes of the adjustable swivel type.

I. MANUALLY OPERATED HOISTWAY DOORS

A bi-parting manually operated metal clad counterbalanced hoistway door shall be furnished and installed at each of the 2 hoistway openings, for clear frame opening of 7'-8" wide by 7'-0" high, equipped with a glass vision panel in the upper section. The doors shall be equipped with suitable hand latches, and include a web strap on upper panel of each door for manual closing.

Doors shall be given a prime coat of paint at the factory. Door opening sills and frames shall be provided and installed by others.

Each door shall be equipped with a suitable electrical and mechanical interlock which shall prevent the operation of the elevator unless all doors are closed, and to prevent the opening of any door unless the car is at the corresponding landing. A retiring cam shall be furnished.

The upper panel of each door shall have safety astragals.

All doors shall bear the Underwriters "B" label.

Doors shall be manufactured by The Peelle Company or Security Fire Door Company.

J. OPERATION - (Single Automatic Pushbutton)

The elevator shall be controlled automatically by means of pushbuttons in the car marked to correspond with the respective landings served, and by single "Call" buttons at each hoistway opening. The momentary pressure of any button shall operate the car, if all car and hoistway doors are closed. The car shall travel to its destination in the direction chosen without interference. After the car has been placed in motion, all other pushbuttons shall become inoperative until the car has reached its designated landing. A time delay, non-interference feature shall be incorporated in the control circuit to allow ample time for opening car and hoistway doors before the car can be dispatched to another landing. An emergency stop switch shall be provided in the car pushbutton station which, when in the off position, will render the elevator inoperative, and which will enable attendant or passenger to stop the car at any point during its travel. An alarm bell button shall be provided in the car station and connected to a bell, located as designated, for emergency use. Each landing station shall contain "In-Use" signal lights to indicate that the car is in motion and that it cannot be called until it has completed the registered call at which time the in-use signal light will be extinguished, and the car placed in readiness for answering the next call registered.

K. MULTI-SPEED LEVELING

An automatic two-way leveling device shall be incorporated so that the elevator car shall approach landing stops at reduced speed from either direction of travel either up or down and shall automatically level landings with an accuracy of 1/4" plus or minus under varying loads. Landing level shall be maintained as long as the car is within the leveling zone. One-way leveling, augmented with an anti-creep device will not be acceptable.

L. ALARM BELL

Alarm Bell shall be installed in the location as designated. It shall be connected to the bottom marked "bell" in the car, and shall be connected to operate from the car lighting circuit.

M. CALL BELL

A call bell shall be installed in the hoistway (or on the car). It shall be connected to the direction buttons in the car and hoistway push button stations, so arranged as to ring when any button (except that corresponding to landing at which elevator may be standing) is pressed if any gate or door is open.

N. JACK UNIT

The jack unit shall be of sufficient size to lift the gross load the height specified. It shall be factory tested to insure adequate strength and freedom from leakage. No brittle material, such as grey cast iron or semi-steel, shall be used in the jack construction. The jack shall consist of the following parts: a plunger of heavy seamless steel tubing accurately turned and polished. A stop ring shall be electrically welded to plunger to positively prevent plunger leaving its casing. An internal babbitt-lined guide bearing; packing of suitable design and quality; a drip ring around casing top; an outer casing made of steel tubing and provided with a pipe connection and air bleeder. Brackets shall be welded to jack casing for supporting the elevator on pit channels.

O. JACK HOLE

The jack hole will be provided by the Elevator Contractor. Preliminary investigations indicate rock will be encountered and the Contractor shall take this into consideration when submitting his bid, as no extra will be allowed for encountering rock, water, quicksand or other unusual soil conditions. If unstable soil conditions are encountered, an auxiliary casing shall be installed. The jack casing shall be wrapped with Minnesota Mining Scotchrap No.51 and installed perfectly plumb in the jack hole.

P. FUTURE TRAVEL

The elevator will presently serve two landings and two openings, a distance of 16'-0". The jack plunger and asing shall be designed to serve a future third landing, an additional travel of 16'-0". A stop ring shall be furnished to positively limit the travel to the present 16'-0". This stop ring shall be readily removable to allow travel to the future landing without addition or modification to the jack plunger. The electrical controls, car pushbutton panel and oil reservoir shall be designed for service to the future floor.

Q. POWER UNIT (Machine)

The Power Unit (oil pumping and control mechanism) shall be compactly and neatly designed, with all components listed below combined in a Self-Contained Unit: Structural steel Outer Base with Tank Supports; oil tight Drip Pan; Inner Base for mounting motor-pump assembly; overhead Oil Reservoir with tight fitting Tank Cover, Oil Fill Strainer and Oil Level Gauge Assembly, and a Self-Cleaning Strainer in the suction line; expanded metal Sheave Guard; an oil-hydraulic Pump; an electric Motor; a V-belt Drive assembly; and an Oil Control Unit and an Electric Controller.

Pump shall be especially designed and manufactured for oil-hydraulic elevator service. It shall be of the rotary positive displacement type, inherently designed for steady discharge with minimum pulsations to give smooth and quiet operation. Output of pump shall not vary more than 10% between no load and full load on the elevator car,

and its mechanical efficiency shall be at least 85% under full rated load. Gear or centrifugal pumps will not be accepted. Motor shall be especially designed for oil-hydraulic elevator service, shall be of standard manufacture, and of duty rating to comply with herein specified speeds and loads.
Drive shall be by multiple V-belts and sheaves of number and size for duty involved.
Oil Control Unit shall consist of the following components, all built into a single assembly. A high pressure relief valve, a safet check valve, an automatic unloading Up-Start Valve, an automatic unloading Up-Stop valve, a Lowering valve, a leveling valve, a Manual Lowering Valve, and a Tank Shut-Off Valve. All adjustments shall be accessible and shall be made without removing the assembly from the oil line.
Relief Valve (hydraulic overload protection) shall be externally adjustable, and shall be capable of by-passing the total oil flow without increasing back pressure more than 10% above that required to barely open the valve.
Safety Check Valve shall be designed to close quietly without permitting any perceptible reverse flow. It shall be designed to support the elevator on a positive locked column of oil when car is at rest.
Up-Start Valve shall be externally adjustable, and shall be designed to by-pass oil flow during initial start of the motor-pump assembly. The valve shall close slowly, gradually diverting oil to the jack unit, insuring smooth up starts, and to relieve load on the motor during starting.
Up-Stop Valve (when used) shall be externally adjustable, and shall be designed to by-pass the oil flow to insure smooth up stops and to compensate for fly-wheel action.
Lowering Valve And Leveling Valve shall be externally adjustable for drop away speed, lowering speed, leveling speed and stopping speed to insure smooth down starts and stops.
Manual Lowering Valve shall be designed for manual lowering of the elevator car in event of power failure and for use in servicing and adjusting the elevator mechanism.
Tank Shut-Off Valve shall be designed for isolating oil in the power unit tank to insure ease of servicing and adjusting the elevator mechanism without removing the oil from the tank.
Self-Cleaning Strainers shall be provided to prevent foreign materials lodging in control system.
Electric Controller shall be of the full magnetic type, with silver to silver contacts on all relays and contactors. Thermal overload relays shall be provided to protect the motor against overloading. All components required for proper performance of the elevator as specified under "Operation" section herein, shall be neatly mounted and wired and completely enclosed in a cabinet with a mechanically latched door. Control cabinet shall be designed for mounting on power unit, on wall or floor stand. The electric control apparatus shall be completely isolated from the oil reservoir.
A blow-out proof Hydraulic Muffler Device, designed to reduce hydraulic pulsations, shall be installed in the oil line near the power unit. The power unit assembly shall be mounted on vibration absorbing materials to isolate the unit from the building structure.
Non-metallic flexible connections will not be installed between jack and check valve and/or control valves.

R.BUFFERS

Suitable buffers shall be provided and installed in the elevator hoistway pit.

S.WIRING, PIPING AND OIL

All necessary wiring shall be furnished and installed in the hoistway in accord with the National Electrical Code, to connect the operating buttons and switches to the control

board in the power unit. All wiring shall be done in rigid conduit or electric metallic tubing except to movable apparatus which shall be connected by short lengths of flexible conduit. All necessary pipe and fittings to connect the power unit to the jack unit, and oil of the proper grade shall be furnished. All underground conduit and piping shall be adequately protected against corrosion.

T. MAIN LINE STRAINER

A main liner strainer and shut-off cock assembly of the self-cleaning type, equipped with a 60 mesh element, and a magnetic drain plug, shall be furnished and installed in the oil line. The unit shall be designed for 300 P.S.I. working pressure, shall be compact in design with easy access for cleaning.

U. AUTOMATIC GUIDE LUBRICATORS

Lubricators shall be provided and set up at the top of each guide rail and shall consist of a closed metal reservoir having wick oil feeds to the face and sides of the guide rails, and shall feed oil from the reservoir through wipers by capillary attraction.

DIVISION 14

ALUMINUM STORE FRONTS

14-A SCOPE

Doors and Frames, Display Windows

14-B INCIDENTALS

1. Finish of all exposed aluminum work of this Division shall be polished to a mirror-like surface, free from defects, and given finish in accordance with Alcoa specification "Alumilite 204 A-1 R-1". Submit sample of finishes to Architect for approval.

2. Care During Construction

   Protect aluminum work during construction by covering with masking tape.

3. Shop Drawings

   Before executing any of the work in the contract, submit for Architect's approval, complete shop drawings in large scale showing in detail all of the work to be furnished and installed in this Division.

4. Insulation

   Where aluminum is to be placed in contact with steel, concrete, partition tile, plaster or other similar masonry construction, aluminum shall be back painted before erection with an approved bituminous paint.

5. Cleaning

   Before acceptance of building by the Owner, remove the protective material and clean the aluminum as follows: All aluminum shall be thoroughly cleaned with plain water or a petroleum product such as white gasoline, kerosene or distillate. No abrasive cleaning agent shall be used.

6. For Glass and Glazing refer to Division 16.

7. All work of this Division shall be installed by a licensed representative of the aluminum store front manufacturer, strictly according to recommendation of manufacturer.

8. The specifications are Kawneer Company equal by Pittco or Brasco will be acceptable.

14-C MATERIALS AND INSTALLATIONS

1. Doors and Frames

   Doors shall be welded narrow stile doors strictly according to Standard Specifications of Kawneer Co. or equal approved by Architect. Provide neoprene glazing strips for all glass.

   Frames shall be Muntin-Mullion frames strictly according to Standard Specifications of Kawneer Co. or equal approved by Architect. Provide neoprene glazing strips for all glass. No putty or stops will be allowed on frame.

   Hardware for each door shall be Style A push and pulls, concealed overhead closer, hold open, aluminum saddles and #77-447 weather seals. One door on each side of store to have maximum security lock. All other doors to have flush bolts at top and bottom. GJ-4 door holders, Push-Pull Direction Plate.

2. Display Windows

   Sash, jambs, sills, corner and division bars, bulkheads, awni

hoods, and trim moulding shall be as manufactured by Kawneer Co. whose catalogue numbers appear on the drawings. Materials and installations shall be in strict accordance to Kawneers standard specifications for store fronts and as shown on the drawings.

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DIVISION 15

CERAMIC TILE AND TERRAZZO

15-A SCOPE

Ceramic Tile, Toilet Accessories, Marble Threseholds, Terrazzo.

15-B INCIDENTALS

1. Responsibility

Instruct Contractor as to proper surfaces required for application of ceramic tile before masonry is laid up or concrete is poured. All masonry surfaces to which ceramic tile is applied shall be laid up perfectly flush and true to line with all irregularities of the masonry units occurring on the opposite side, which is not covered with the ceramic tile. All mortar joints of surface to which ceramic tile is to be applied shall be struck flush. Report any defects to the Architect before laying the ceramic tile. Replace any work installed on defective surfaces at no extra cost to Owner. Surfaces must be dry, clean, true and structurally sound.

2. Samples

Submit samples of ceramic tile for floor and walls to Architect for approval.

3. All tile shall be delivered to the job in unopened grade sealed containers. Upon request a manufacturer's master grade certificate shall be furnished through the tile contractor before installation of tile.

4. All ceramic tile shall be of domestic manufactured as per samples approved by the Architect and shall be Standard Grade. All tile work shall conform to S.P.R. #R61-44 issued by the U.S. Department of Commerce.

15-C MATERIALS AND INSTALLATIONS

1. Ceramic Tile

Wall tile shall be $4\frac{1}{4}$" x $4\frac{1}{4}$" x 3/8" Standard Grade as manufactured by the Mosaic Tile Company or equal as approved by the Architect. Shall be Harmonitone Satin Matt colors as selected by the Architect Tile shall be cushion edge with spacers on edges. Ceramic base on tile wainscot shall be #A-3401. Ceramic base on plaster walls shall be #A-3601. Ceramic cap on tile wainscot shall be #A-4402. All external corners shall be bullnose.

Floor tile shall be 1 1/16" square Standard Grade Harmonitone Ceramic Mosaics as manufactured by the Mosaic Tile Company or equal as approved by the Architect. Colors shall be as selected by Architect. Install floor and wall tile on setting bed of Portland Cement scratch and float coats with Crest Tile Set in strict accordance with all applicable requirements as specified in the American Standard Specifications for Ceramic Tile as sponsored by the Tile Council of America, Inc. Grouting cement shall be white.

2. Toilet Accessories

Mirror at each lavatory shall be #1620 as manufactured by the F.H. Lawson Company Soap Dispenser over each lavatory shall be #11 Likwidurn as manufactured by the American Dispenser Co., Inc. Paper towel cabinet for each toilet room shall be Nibroc #70 as manufactured by the Brown Company. Install toilet accessories in accordance with recommendations of accessory manufacturer anchoring securely in place.

3. Marble Thresholds

Shall be Group A marble from either Tennessee or Georgia as selected by the Architect. Marble shall be hard, sound and free from defects with all exposed edges rounded. Install as required anchoring securely in place.

4. Terrazzo

All materials used in laying terrazzo floors and precast terrazzo work shall be in strict accordance with recommendations of the National Terrazzo & Mozaic Association, Inc., using kraft paper directly on structural slab and 2" galvanized chicken wire mesh on floors, domestic marble chips shall be of colors as selected by Architect. Samples of terrazzo shall be made in triplicate and submitted to Architect for approval. Entire vestible floors shall match Plate No.103 and the Merchandising Stair treads shall match Plate No.204.
Provide two 1/4" round reinforcing bars full length of each precast tread as well as 2" galvanized chicken wire mesh.
Provide 3 strips of non-slip plastic abrasive 1/4" wide by 3/8" thick full length of each precast tread as recommended by the National Terrazzo & Mosaic Association,Inc.
Color of strips to be Dark Brown.
All terrazzo treads, risers and landings on Merchandising Stair shall be precast. Provide shop drawings on all precast work for Architect's approval.
Risers shall be anchored securely in place with 3/16" steel dowel pins. Treads shall be anchored securely in place with butterfly anchors.
Installation of kraft paper, wire mesh, under bed, divider strips and terrazzo, including the mix, curing , precast work, surfacing and the finishing shall be made in strict accordance to recommendations of the National Terrazzo & Mosaic Association,Inc.
Install precast work level and true to a line achoring securely in place as shown on the drawings.

DIVISION 16

GLASS AND GLAZING

16-A SCOPE

Glass

16-B INCIDENTALS

1. All glass shall have the American Manufacturer's Label showing thickness and quality. These shall not be removed without permission of the Architect.

2. Glass is specified as by Libby-Owens-Ford Glass Co. and Blue Ridge Glass Co. Equals as approved by Architect will be acceptable.

16-C MATERIALS AND INSTALLATIONS

1. Glass

   a. 3/8" Plate Glass

   Shall be Libbey-Owens-Ford Parallel-O-Plate polished plate glass.

   b. 1/4" Plate Glass

   Shall be Libbey-Owens-Ford Tuf-Flex tempered polished plate glass.

   c. 3/16" Glass

   Shall be Libbey-Owens-Ford flat drawn B quality.

   d. Installations

   Install all 3/8" plate glass and 1/4" plate glass as required in the display windows and the entrance doors and sidelights in strict accordance to recommendations of the aluminum store front manufacturer specified in Division 14. Install 3/16" glass in door as required.

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DIVISION 17

COMPOSITION FLOORING

17-A SCOPE

Asphalt Tile, Linoleum.

17-B INCIDENTALS

1. Responsibility

Instruct contractor as to proper finish and any other details before sub-floors are poured. Examine sub-floors and report any defects to Architect before laying flooring. Replace any work installed over defective- sub-floors at no cost to Owner.

2. Protection

Keep traffic off finished floor insofar as possible. Flooring shall be protected from all traffic with tough reinforced building paper.

3. Samples shall be approved by the Architect before work is begun.

4. Before starting work consult with Architect and obtain his approval on locating tile in each area.

5. Materials specified are as manufactured by Armstrong Cork Co. Equals as approved by Architect will be acceptable.

17-C MATERIALS AND INSTALLATIONS

1. Asphalt Tile

Shall be 9" x 9" x 1/8" thick asphalt tile as manufactured by Armstrong Cork Company. Color shall be grade C and D, as selected by the Architect. No border tile will be required.
All concrete floors to be covered with Asphalt tile shall be primed with Armstrong's #S-80 primer. Adhesive for asphalt tile flooring shall be Armstrong's S-160 emulsion, S-700 brushing cement or S-90 cement.
The primer, adhesive and asphalt tile shall be installed in strict accordance with the latest edition of Armstrong Standard Specifications by a qualified Armstrong Flooring Contractor as approved by the Architect.

2. Linoleum

Shall be 1/8" thick plain linoleum in regular color as manufactured by Armstrong Cork Company. Color shall be as selected by Architect. Install on stair treads and landings as required anchoring securely in place with Armstrong's #S-128 adhesive. Provide Chromedge nosing #502A as manufactured by The B & T Metal Company, Columbus, Ohio anchoring securely in place as recommended by nosing manufacturer.

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DIVISION 18

FINISH HARDWARE

18-A SCOPE

Builders Hardware.

18-B INCIDENTALS

1. Delivery and Protection

Contractor receiving hardware shall be responsible for care, preservation and protection of same until acceptance of building by Owner.

2. Hand of Door

Architect reserves right to change swing and hand of door if desired before doors are set.

3. Items Not Specified

Any hardware for doors not specifically specified in this division but necessary to complete the job will be furnished in accordance with similar hardware for similar doors. Where hardware is not suitable or adaptable to its particular location, suitable hardware shall be provided. It is the Contractor's responsibility to verify the quantity of hardware where needed to complete the job.

4. Packing and Marking

All items of hardware shall be individually packed and labeled with an item number corresponding to the Schedule.

5. Schedules

The hardware subcontractor shall submit six copies of a complete Finish Hardware Schedule for approval.

6. Templates

As soon as the Hardware Schedule has been approved, the hardware subcontractor shall furnish all necessary schedules and templates to such door and frame manufacturers as may require them.

7. Finish

Shall be U. S. 28 except in Toilet rooms which shall be U. S. 26.

8. Butts

Butt hinges shall be by Stanley, McKinney, Hager or Soss.

9. Locksets shall be equal to Sargent 8 line MM.

18-C MATERIALS AND INSTALLATIONS

1. Finish Hardware

Heading 1

2 Pair Doors 1 & 2 Exterior from Mdse. Area 002 Aluminum Door and Fra
2 Pair Doors 11 & 12 Exterior from Mdse. Area 107 Aluminum Door and Fra
4 Pair Cyls AN 40
Balance of Hardware furnished with doors

Heading 2

1 Pair Doors 6 Receiving 006 to Mdse. Area 002 2/2-6 X 6-8 X 13/4 MKM
RH

Heading 2

3 Pair Butts	BB1146 PT 4½ x 4½ x TMS
1 Dead Bolt	DCM 4825 x BOXSTR x TMS
2 Flush Bolts	AN1116-12" x TMS
1 Push Plate	AN893 x MS
1 Push Plate	AN8931 x MS
1 Pull Plate	AN18930 x MS
1 Pull Plate	AN18931 x MS
2 Closers	EN43VPH x 239BR x TMS
2 Silencers	GJ64J

Heading 3

1 Door 7 Area 002 from Show Window #2 2-8 x 6-8 x 13/8W LHR
1 Door 8 Area 002 from Show Window #1 2-8 x 6-8 x 13/8W RHR
1 Door 9 Area 002 from Show Window #1 2-8 x 6-8 x 13/8W LHR
1 Door 14 Display Room from Show Window #3 2-8 x 6-8 x 13/8W LHR
1 Door 15 Display Room from Show Window #3 2-8 x 6-8 x 13/8W LHR
1 Door 16 Alcove 104 from Show Window #4 2-8 x 6-8 x 13/8W LHR
1 Door 17 Alcove 104 from Show Window #4 2-8 x 6-8 x 13/8W LHR

10½ Pair Butts	1242 3½ x 3½
Casement Fasteners	5170R

Heading 4

1 Door 4 Area 002 to Toilet 008 2-6 x 7-0 x 13/4W x M RH
1 Door 5 Area 002 to Toilet 007 2-6 x 7-0 x 13/4W x M RH
1 Door 21 Area 108 to Toilet 109 2-6 x 7-0 x 13/4W x M RH
1 Door 22 Area 108 to Toilet 110 2-6 x 7-0 x 13/4W x M RH
1 Door 23 Area 108 to Toilet 111 2-6 x 7-0 x 13/4W x M RH
1 Door 31 Sick Bay 206 to Toilet 207 2-6 x 7-0 x 13/4W x M RH

9 Pair Butts	BB1146PT 4½ x 4½
6 Closers	EN53R-0 x ATMS
6 Push Plates	AN893
6 Door Pulls	AN1893
6 Kick Plates	8 x 28 x US28
18 Silencers	GJ64
1 Floor Stop	AN66 (Door #31)

Heading 5

1 Door 10 Area 002 from Stair #1 3-4 x 6-9 x 13/4M x M LHR
1 Door 18 Alcove 104 from Show Window #4 2-103/4 x 6-93/4 x 13/4 M x M LHR
1 Door 19 Alcove 104 from Show Window #4 2-103/4 x 6-93/4 x 13/4 MxM LHR
1 Door 20 Area 105 from Stair #2 3-4 x 6-9 x 13/4 M x M LHR
1 Door 24 Stair #1 from Area 108 3-4 x 6-9 x 13/4 M x M LHR
1 Door 30 Stair #2 from Pass.201 3-4 x 6-9 x 13/4 M x M LHR
1 Door 36 Roof from Stair #1 3-0 x 6-8 x 13.4 M x M LHR
"B" LABEL

10½ Pair Butts	BB1146PT 4½ x 4½
2 Sets Latches	AN8U15MM x TMS (Door 18 & 19)
4 Sets Locks	AN8G16MM x TMS (Door 10,20,24,& 30)
1 Set Locks	AN8G17MM x TMS (Door 36)
3 Closers	EN44VP x 239BR x TMS (Door 10, 20 & 36)
2 Closers	EN44V x TMS (Door 24 & 30)
2 Closers	EN43V x TMS (Door 18, 19)
6 Floor Stops	DCM66

Heading 6

1 Pair Doors 25 Area 108 from Steam Room 113 2/2 -0 x 7-0 x 21/4 WxM ½RHR

3 Pair Butts	1146PT 5 x 4½
1 Set Locks	AN8605MM
2 Flush Bolts	AN1116-12" x 1/STMS
2 Silencers	GJ64

Heading 7

1 Door 26 Area 108 from Trash Room 114 3-6 x 6-8 x 13/4 M x M RHR

1½ Pair Butts	1146PT 4½ x 4½ x TMS
1 Set Locks	AN8G05MM x TMS
1 Knob Bumper	AN129
3 Silencers	GJ64
1 Closer	

Heading 8

1 Door 27 Area 108 from Elevator Machine 115 2-8 x 7-0 x 13/4 MxM RHR
1 Door 29 Pass 201 from A.C. Room 209 2-8 x 7-0 x 13/4 WxM RHR

3 Pair Butts	1146PT 4½ x 4½ (1½PR TMS)
1 Set Locks	AN8G04MM x TMS
1 Set Locks	AN8G04MM x STMS
2 Floor Stops	AN66
6 Silencers	GJ64

Heading 9

1 Door 13 Area 107 to Display Room 106 2-8 x 7-0 x 13/4 W x M RH
1 Door 32 Pass.201 to Sick Bay 206 2-8 x 7-0 x 13/4 W x M LH
1 Door 33 Pass.201 to Lunch Room 205 3-0 x 6-8 x 13/4 W x M LH
1 Door 34 Office 202 from Money Room 204 3-0 x 6-8 x 13/4 W x M RHR
1 Door 35 Office 202 to Manager 203 3-0 x 6-8 x 13/4 W x M RH

7½ Pair Butts	1146PT 4½ x 4½
5 Sets Locks	AN8G05MM x STMS
5 Floor Stops	AN66
15 Silencers	GJ64

Heading 10

1 Door 28 Roof from Passage 201 3-0 x 6-8 x 13/4 MxM LHR
1 Door 40 Roof from A.C. Equipment Room 212 3-0 x 6-8 x 13/4 MxM RHR

3 Pair Butts	BB1146PT 4½ x 4½ x TMS x NRP
1 Set Locks	AN8G17MM x TMS (Door 28)
1 Set Locks	AN8G04MM x TMS (Door 40)
2 Closers	EN44UP x 239BR x TMS
6 Silencers	GJ64

2. Installation

All finish hardware shall be installed strictly according to recommendations of Hardware Manufacturer.

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DIVISION 19

CAULKING, PAINTING AND PLASTIC FABRIC

19-A SCOPE

Caulking, Exterior Paint, Interior Paint, Plastic Fabric.

19-B INCIDENTALS

1. Approval of Architect shall be obtained of all surfaces to be painted before first coat of paint is applied and approval of each coat of paint shall be obtained from Architect before the next coat is applied.
   Contractor shall completely paint one room as selected by Architect, final approval of which shall be obtained from Architect before rest of building is painted. Contractor shall carefully examine all surfaces to be painted and shall notify the Architect promptly in writing of any conditions which would be detrimental to a satisfactory paint job, the correction of which in his opinion falls outside the scope of this division.

2. No painting shall be done until the area involved is in a broom clean condition and no dust shall be stirred due to work involved.

3. All materials used in the work shall be of the brands and qualities specified and shall be delivered to the job in their original containers with labels intact and seals unbroken. No other paint shall be brought on the job. All thinners and dryers delivered to the job shall be only those approved for use by the manufacturer of the paints. No paints shall be reduced, nor shall faster drying be induced by the addition of any product designed for such purposes, except as recommended by the paint manufacturer. Thinners or solvents used for cleaning brushes or other clean-up shall not be used in the paint. Paints which have been packaged over six months shall not be used in the work except such products as are known to have long package stability when unopened, and then only when guaranteed by the manufacturer and approved by the Architect.

4. The painter shall store all paint materials and equipment in immediate use in a room or rooms assigned for that purpose by the Architect. The floor and wall surfaces of the space shall be suitably protected against damage or defacement. Necessary precautions shall be taken to reduce fire hazard to a minimum. Upon completion of the work the space shall be left clean and in as good condition as any other area on the job.

5. Colors of paint to be as selected by Architect.
   J.C. Penney Company shall provide color schedule for interior.
6. No painting permitted on interior until all construction activities involving moisture and dust in adjacent areas have been completed, the moisture involved has been dissipated and adjacent surfaces have reached a reasonably constant condition of humidity.

7. Preparation of Surfaces for Painting

   a. Exterior

      On all exposed ferrous metal surfaces, remove foreign materials, including rust and scale, which would interfere with adhesion of the specified coating, and leave surface smooth and clean for painting.
      Immediately after removing rust, prime with one coat of Ironhide #8-2.

   b. Interior

      (1) Wood Surfaces (Painted)

         Sand all exposed surfaces smooth, free of marks or

discoloration. Wash sap spots and knots with turpentine. When dry apply one coat of 4 lb. orange shellac sealer to sap spots and knots. Fill voids with Swedish putty after primer is dry. Remove foreign materials which would interfere with adhesion of specified coating. Leave smooth and clean, ready for painting. Before applying paint to any metal surfaces adjacent to completed plaster work, sand off all rust and touch-up sanded spots with one coat of Ironhide #8-2.

8. Application of Paint

No spray painting will be allowed. No paint shall be applied until preceding coat is thoroughly dry. No paint shall be applied in freezing weather or on damp surfaces. All paint shall be spread evenly and well, in neat, workmanlike manner. No drops, runs or sags allowed. Finish coat shall be free of noticeable laps or brush marks. Any coat adjudged unsatisfactory by Architect shall be sanded or cleaned off and additional coat applied. Mix paints in strict accordance with manufacturer's directions. Use only thinners recommended by manufacturer. All interior wood work shall be sanded between coats with fine sandpaper or steel wool.

9. Paint shall be Pittsburgh Paints by Pittsburgh Plate Glass Company whose catalogue numbers appear hereafter, or equal, as approved by Architect.

10. Provide written guarantee to Owner that all caulking shall be free from defects of material and workmanship for a period of five years after acceptance of building by Owner.
Repair and replace such defective work without cost to Owner.

11. All caulking shall be slightly concave with adjacent surfaces except that a small bead will be allowed on joints 1/8" wide or less.

19-C MATERIALS AND INSTALLATIONS

1. Exterior Caulking (On outside of building)

Shall be Weatherban brand sealer as manufactured by Minnesota Mining and Manufacturing Co., in aluminum color. On all surfaces of concrete and masonry to be caulked provide Weatherban primer. Color of caulking shall be aluminum except those in expansion joints and in joints with masonry on both sides which shall be tan. Shall be installed strictly according to applicable parts of Weatherban technical data sheet, Issue #2 by Minnesota Mining and Manufacturing Co. On all joints less than 1/4" wide the depth of caulking shall equal twice the width. On all joints 1/4" or more in width the depth of caulking shall equal the width.

Caulk all joints as follows:

a. Caulk all exposed joints between masonry and aluminum.

b. Caulk all exposed joints between plaster and aluminum.

c. Caulk all exposed expansion joints between masonry and masonry. Pack joints with oakum before caulking. Caulking to be recessed 1". Caulking to be of same depth as width of expansion joint.

d. Clean all adjoining surfaces of caulked joint thoroughly strictly according to recommendations of caulking compound manufacturer.

2. Interior Caulking (On inside of building)

Shall be Alumilastic caulking compound as manufactured by Parr Paint and Color Company, except as noted below. Caulk all joints as follows:

a. All exposed joints between aluminum and plaster and all exposed joints between aluminum and masonry.

b. All other joints as indicated on the drawings.

c. Clean all adjoining surfaces of caulked joint thoroughly strictly according to recommendations of caulking compound manufacturer.

3. Exterior Paint

Ferrous Metal Primer - #8-2 Ironhide
Galvanized Metal Primer - #8-11 Ironhide
Finish Paint - Sun Proof Exterior Paint

Paint all exposed surfaces of all ferrous metals (including galvanized) 1 coat of primer and 2 coats of finish paint. Omit prime coat of paint on all metals having shop coat of paint.

4. Interior Paint

Ferrous Metal Primer - #8-2 Ironhide
Galvanized Metal Primer - #8-11 Ironhide
Wood Primer - Snolite Enamel Undercoater
Plaster Primer - Wallhide Primer Sealer

Finish Paint

All surfaces - Wallhide alkyd type flat
Wallhide Semi-Gloss
Wallhide Gloss Enamel

Natural Finish

a. Sealer - 83-330 Plywood sealer prime coat cut half and half with Teptyne.
b. Varnish 2nd. coat - Water Spar varnish 83-100
c. Finish Coat - Water Spar Satin Finish varnish 83-350

5. Installations (Exterior and Interior Paint)

Paint all exposed surfaces of all ferrous metals (including galvanized) 1 coat of primer and 2 coats of finish paint. Paint all exposed surfaces of wood 1 coat primer and 2 coats finish paint, except those wood surfaces having other finishes specified. Where indicated on the drawings paint all exposed surfaces of plaster 1 coat of primer and 2 coats of finish paint. Where indicated on the drawings for natural finish and on hardwodd surfaces paint 1 coat sealer, 1 coat varnish and 1 coat of satin varnish. Top and bottom edges of doors to receive prime coat immediately agter door is fitted into openings. Sand lightly with fine sandpaper or steel wool between each coat on all wood surfaces. Non-ferrous metals or metals with a factory finish are not to be painted. Shop coat of paint on metals shall not be construed as being a factory finish. Omit prime coat on all metals with shop coat of paint. For areas to receive flat, semi-gloss and gloss,paint see the drawings.

6. Plastic Fabric

For dado on Merchandising stairs shall be Kalistran RCL - Sandalwood as manufactured by United States Plywood Corporation. Aluminum moulding shall be satin finish 744 as manufactured by Youngstown Metal Company.
Plastic fabric shall be handled and applied in strict accordance with the manufacturer's printed instructions using adhesive as recommended by the manufacturer and as approved by the Architect
Notify Architect if surfaces to which plastic fabric shall be applied is not suitable for a workmanlike installation of the
Seams shall be a tight butt joint.
Lay sample panel of plastic fabric and obtain approval of Architect before proceeding with the work.

DIVISION 20

PLUMBING

20-A SCOPE OF WORK:

1. The work required under this heading shall include all labor, materials, tools, equipment and services necessary to complete all plumbing work indicated on the Drawings, specified, and reasonably implied. Generally it shall include but not be limited to the following:
   - a. Soil, waste and vent piping.
   - b. Hot and cold water supply piping.
   - c. Hot water circulating piping.
   - d. Gas piping.
   - e. Rainwater piping and flumes.

2. Plumbing Fixtures and Equipment.

20-B INCIDENTALS:

1. General for Piping: All piping shall be run straight and parallel to building construction. All changes in directions shall be made using proper fittings. Copper pipe shall not be pinched or bent causing restriction in flow, Generally all piping in all areas shall be concealed in pipe chases or under the floor. Piping under floor shall be run in straight lines. Piping outside of building shall be buried sufficiently deep to prevent freezing or crushing.

2. Special Connections: Furnish all pipe and fittings, and connect plumbing services to all equipment furnished under other Divisions of the specifications and by the Owner.

3. Intent of Specifications: This Specification outlines the minimum requirements acceptable to the J. C. PENNEY COMPANY. Where Local or State Code requirements are more stringent than the Specifications, said Code requirements shall be followed and the work installed to conform to the various Codes.

4. Drawings: Mechanical drawings are diagrammatic, showing the general arrangement and approximate location of piping and apparatus.
   Refer to the Architectural Plans for all dimensions and locations.

5. General Conditions: Attention is called to the General Conditions and Supplementary General Conditions and other Divisions of the Specifications which affect the work under this Division; Plumbing Contractor refer to same before submitting his bid on plumbing work.

6. Conformity to Codes, Laws, and Ordinances:
   - a. Obtain and pay for all permits, inspection certificates, etc. required, and turn them over to the owner upon completion of the job.
   - b. The entire installation shall be installed in accordance with the City of Athens Plumbing Code, City of Athens Building Code, and National Board of Fire Underwriters.

7. Materials and Workmanship:
   a. All materials shall be new.
   b. Where material or apparatus other than that specified is furnished, all necessary redesign, drawings and rearrangements or increase in quantity of materials shall be provided by the Contractor, subject to approval of the Architect.
   c. During construction all materials or equipment shall be protected against damage from impact, or otherwise, and from freezing.

8. Space Conditions:
   a. All material or equipment furnished shall conform to the space limitations.
   b. Maintain maximum headroom and space conditions at all points.
   c. Coordinate all plumbing with other divisions of the work.

9. Shop Drawings: The following shop drawings shall be submitted for approval:
   a. Plumbing fixtures.
   b. Water heater and circulating pump.
   c. Water pressure reducing valve.
   d. Rainwater flumes.
   e. Roof drains.

10. Excavation and Backfilling: Provide all excavations of trenches required for sewers, drains, rainwater, gas, water, etc. After the work is in place, backfill and thoroughly tamp all earth around pipes. Exclude all cinders and rubbish from pipe and trenches.

11. Tests:
   a. Sanitary System:
      1. The entire sanitary system including all drainage, vent, and rainwater lines shall be tested as follows and before all such work is concealed and fixtures have been set.
      2. It may be tested in its entirety or in sections with at least a ten foot head of water. If the test shows defects or leaks, they shall be corrected and the test repeated until the system is water tight.
   b. Gas Piping System:
      1. The entire gas piping system shall be tested before any piping is concealed and before equipment is connected. It shall be tested with compressed air and proven tight with a constant pressure of 50 p.s.i.g. maintained for a period of 30 minutes without further addition of air.
      2. Test all joints with soap suds.
      3. All other tests required by Local Gas Company shall be made if and in a manner required by same.
   c. Test of Water Supply Piping: The entire water supply and circulating lines shall be tested before all such work is concealed and fixtures have been set. It shall be tested with air and proven tight with a constant pressure of 150 lbs. per sq. inch maintained for 30 minutes without further addition of air.
   d. Other Tests:
      1. After completion the entire plumbing system shall be tested by running water through all hot and cold water pipes, fixtures and traps in order to detect leaks and defects.

2. All other tests required by the City Plumbing Inspector shall be made if and in a manner required by him.

12. Certificate and Guarantee:
   a. The Plumbing Contractor shall furnish the Owner and/or J. C. PENNEY COMPANY, INC., a certificate of approval issued by the authorities having jurisdiction over the work.
   b. The Plumbing Contractor hereby warrants, and the General Contractor hereby guarantees that all work and materials which shows defects within one year from the date of acceptance will be promptly removed and replaced by him without additional cost to the Owner and/or J. C. PENNEY COMPANY, INC., and that all work so replaced shall be in strict accordance with the Drawings and this Specification. If leaks occur within one (1) year of final certificate, they shall be made tight free of expense, and with minimum annoyance to building occupants. The Contractor shall also pay all costs required to correct damages to work of other trades caused by leaks in plumbing system.
   c. Further guarantee that all equipment, material, etc. meets the requirements of these specifications.

13. Temporary Sanitary Conveniences: This Contractor shall furnish and install one water closet and wash sink to be maintained in sanitary condition and good working order. When no longer required, the fixtures shall be removed and outlets sealed.

14. Concealed Work:
   a. No work of any kind shall be covered before it has been examined and approved by the Plumbing Inspector, and the J. C. PENNEY COMPANY.
   b. All Plumbing Lines shall be concealed behind finished surfaces unless expressly permitted to be exposed by authorized J. C. PENNEY COMPANY, Construction Division Representative.

15. Cooperation: Every reasonable effort shall be made by this Contractor to assist other Contractors in the installation of their work by furnishing exact locations of pipes, fixtures, sleeves, etc., and by installing his work at such time so as not to interfere with other work on the building.

16. Expansion and Contraction: Make all necessary provisions for expansion and contraction to prevent damage to the system or to other Contractors' work. Replace all work damaged due to not making sufficient provisions for same.

17. Permits, Fees, Licenses, Etc.: Refer to Article 9 of the "GENERAL CONDITIONS".

18. Cutting, Patching, Repairing, Etc.: Refer to Article 34 of the "GENERAL CONDITIONS".

19. Painting: All damaged finish of Equipment shall be painted to match original factory finish.

20-C MATERIALS AND INSTALLATIONS:

1. Materials:
    - a. All Cast Iron, Wrought Iron, Steel, Brass, and Copper Piping shall conform to A.S.T.M. Standard Specifications Latest Revision that applies.
    - b. Sheet Lead shall weigh at least 4 lbs. per square foot.
    - c. Caulking Ferrules shall be of the brass pipe conforming to A.S.T.M. Standard Specifications B-43-47.
    - d. Fittings for Wrought Iron and Steel Pipe shall be galvanized malleable iron.
    - e. Floor Flanges for Water Closets shall be not less than 3/16" thick, brass or cast iron.
2. Joints and Connections: All joints and connections shall be made gas-tight and water tight.
3. Types and Use of Joints:
    - a. Caulked Joints: All cast-iron bell and spigot pipe shall be caulked jointed. The joint shall be firmly packed with oakum or hemp and secured with molten lead. At least 12 oz. of soft lead shall be used for every inch of pipe diameter. Lead joints for water supply piping shall conform to the regulations of the authorities having jurisdiction.
    - b. Screw Joints: Joints between wrought-iron, steel, brass or copper pipe shall be screw joints with American Standard Taper Pipe Thread. All burrs and cuttings shall be removed and ends filed or reamed out to size of bore. Joint cement and paint shall be removed and ends filed or reamed out to size of bore. Joint cement and paint shall only be applied to male threads.
    - c. Wiped Joints: Wiped joints in lead pipes or between lead pipe and brass or copper pipe, ferrules, solder nipples, bushings, or traps, in all cases on the sewer side of the trap, shall be full-wiped joints. The solder shall have an exposed surface on each side of a joint not less than 3/4" and the minimum thickness at the thickest part of the joint not less than 3/8".
    - d. Soldered or Sweat Joints: All soldered joints in copper water tubing shall be made with Standard fittings. Surfaces to be soldered shall be cleaned bright. The joints shall be properly fluxed and made with approved solder.
    - e. Hot Poured Joints: All joints in clay sewer pipe or concrete sewer pipe shall be hot-poured joints. The joints shall be caulked with hemp or oakum rammed, and then filled with a hot poured material that will not soften when subjected to a temperature of 160°F., nor be soluble in sewer wastes.
    - f. Unions: Unions may be used in trap seals and on the inlet side of the trap. Unions shall have metal to metal seats.
    - g. Expansion Joints: Expansion joints of an approved type may be used where necessary.
    - h. Slip Joints: In drainage piping slip joints may be used only in the waste pipe between the trap seal and the fixture.
    - i. Water Closet, Pedestal Urinal and Trap Standard Service Sink: The connection between drainage pipes and water closets, floor outlets service sinks, pedestal urinals and earthenware trap standards, shall be made of brass or cast iron flanges, caulked, soldered, or screwed to drainage piping. The connections shall be bolted to the earthenware by means of brass bolts with an approved gasket or washer or setting compound between the earthenware and the connection. The floor flange shall be set on an approved firm base.

4. Grade of Horizontal Drainage Piping: Horizontal drainage pipe (including rainwater) shall be installed in practical alignment with a minimum fall of 1/4" per foot for pipe of 3" diameter or less. Pipe larger than 3" may be installed with 1/8" per foot fall, provided job conditions do not permit installation of pipes with 1/4" per foot fall.

5. Pipes in Trenches: Water service and house-sewer pipes shall be laid in separate trenches. If job conditions dictate that water service and house-sewer must be laid in the same trench, the water pipe shall be laid on a bench or solidly tamped backfill at least 12-inches above the top of the sewer pipe.

6. Changes in Drainage Pipe Direction: Changes in direction shall be made by use of 45 degree "Y's", long or short sweep quarter bends, sixth, eighth, or sixteenth bends or by combination of these. Short quarter bends may be used only where the change in flow is from horizontal to vertical.

7. Prohibited Fittings, Connections and Practices:
   a. Double Hubs: No pipe or fittings with double hubs on the same run or double tee branches shall be used on soil or waste piping.
   b. Prohibited Practices: The drilling, tapping, or welding of building drains, soil, waste, or vent pipes and the use of saddle hubs or bands are prohibited.
8. House Sewer: The Contractor shall provide a satisfactory house sewer connected to the house drain. New house sewer shall be constructed of extra heavy cast iron pipe, laid at a minimum depth of 3'-6".
9. Fresh Air Intakes: Fresh air intakes shall be provided where shown on the drawings. Fresh air intakes shall be of 4" size and shall be properly vented as shown on the drawings, "P" trap shall be used and shall be provided with full size cleanout on both sides of trap.
10. House Drain: The house drain of size shown on drawings shall be connected to the house sewer 5'-0" beyond the building wall.
11. Soil and Waste Branches: Soil and waste branches connected to individual fixtures shall be not less than the following:
    a. Water Closets--------------------4 inches
    b. Floor Drains----------------------3 inches
    c. Urinals---------------------------2 inches
    d. Service Sinks---------------------3 inches
    e. Lavatories------------------------1-1/2 inches
    f. Drinking Fountains----------------1-1/2 inches

    Branch lines can be cast iron, galvanized genuine wrought iron, or Type "L" hard drawn copper tube.

12. Soil, Waste and Vent Piping:
    a. Cast Iron Pipe: Soil, waste, and vent piping inside the building and extending at least five feet (5'-0") beyond the building wall shall be extra heavy weight cast iron hub and spigot soil pipe, with oakum and lead joints.
    b. Fittings shall be cast iron of quality and weight equal to that of the pipe.
    c. Pipe and fittings shall be tar coated inside and out, and shall conform to Federal Specification WW-P-401.
    d. Each joint shall be made with two pourings and thoroughly caulked each time. All pipe or fittings with sand holes or cracks shall be removed and replaced.

e. No vent shall be installed closer than two pipe diameters to trap weir. Vents shall be 2" minimum size. All vents shall be properly graded for drainage by gravity. Vents shall extend at least 12" above roof.

13. Rainwater Piping System:

a. Rainwater Piping: All interior rainwater piping shall be extra heavy cast iron soil pipe and fittings with caulked joints; same as specified for sanitary piping. Rainwater flumes shall be furnished and installed by Plumbing Contractor.

b. Roof Drains: Roof Drains shall be Josam, Series 410S, size shown on drawings. Drains shall be complete with removable high dome strainer and sediment cups, gravel stop and flashing clamp, deck clamp, screwed outlet and brass sleeve and ferrule.

c. Cleanouts in rainwater piping shall be as hereinbefore specified for soil, waste and vent piping.

14. Floor Drains:

a. All floor drains in all toilet rooms on First Floor and on Penthouse Floor shall be Series #300, Josam, with adjustable polished brass strainer, cast iron body, inside caulk outlet, and clamping device or approved equivalent Zurn drain of type, and size to suit floor and roughing-in conditions. Provide separate full size cast iron "P" trap for each floor drain.

b. All floor drains in Steam Room, Trash Room, Boiler Room and Air Conditioning Equipment Room shall be Series #5440, Josam, with polished brass strainer and top, cast iron body and sediment bucket, inside caulk outlet, and clamping device, or approved equivalent Zurn drain of type and size to suit floor and roughing-in conditions. Provide separate full size cast iron "P" trap for each floor drain.

c. All floor drains at ground floor level except in pits, shall be Josam, Series # 210-V with clamping device and backwater valve, and spigot outlet, or approved equivalent Zurn drain of proper type and size to suit floor and roughing-in conditions.

d. Pit drains shall be Josam, Series #6050 cast iron body, trap, grate, clamp ring, removable sediment bucket, and backwater valve, threaded outlet with spigot adapter, or Zurn Company approved equivalent.

e. Note: (The above floor drain numbers are intended to establish a minimum standard. Other drains of equivalent size and quality, of proper design, type and dimensions to suit floor construction and roughing-in conditions, etc., may be substituted provided J. C. PENNEY COMPANY prior approval is obtained). Floor drains shall be provided in:

1. Toilet floors.
2. Boiler room floor.
3. Air conditioning and machinery rooms.
4. Elevator Pits.
5. All other locations indicated on the Drawings.

f. Waterproof the drains with Six (6) pounds per square foot sheet lead attached to the clamping ring, and carry the lead out 12-inches around the exterior surfaces of drain bodies.

15. Cleanouts:
a. Provide easily accessible cleanouts at the foot of each vertical waste, soil stack, inside rainleader on all horizontal drainage lines, and a cleanout with "Y" branch inside the wall near the connection between the building drain and the building sewer. Cleanouts will be required at each change of direction of the horizontal drain greater than a 45 degree angle.
b. Cleanouts shall be of the same size as the pipes up to 4 inches for larger sizes. Cleanout plugs shall be of heavy red brass not less than 1/8" thick and shall be provided with a raised nut unless they occur in finished floors when they shall have a recessed socket for removal.

16. Roof Flashings: All pipes, except leaders, penetrating the roof shall be flashed with six (6) pounds per square foot sheet lead, extended out 12 inches around the pipe and turned up and soldered around and to the pipe, and secured to same with brass or copper bands.

17. Hangers and Supports:
a. Vertical piping shall be supported at the base and at every floor. In no case shall the distance between supports exceed 25 feet.
b. Horizontal piping shall be supported at points sufficiently close to keep it in alignment and prevent sagging, but at intervals not exceeding 10 feet.
c. Hangers shall be made of suitable material of adequate strength and shall be attached to the building construction by use of suitable clamps or inserts, without the use of wooden plugs.
d. Provisions for expansion shall be made as necessary.
e. Pipe hangers shall be split ring type Grinnell Fig. 104, or approved equal, for all pipe except copper tubing.
f. Hangers for copper tube shall be Grinnell Fig. CT-97, or approved equal, copper-plated steel hanger.

18. Pipes Through Roof or Walls: Where pipes pass through the roof or exterior wall, the openings shall be made water tight.

19. Water Service and Water Meter:
a. Furnish and install a new water meter, vault, valves, strainer, drain and accessories, all in accordance with the rules and regulations of the Local Department of Water Supply. A main shut-off valve on the new water service shall be provided near the curb. Arrange and pay for all costs for Local Department of Water Supply to construct meter vault and install meter and accessories. Water meter shall be 2" minimum size and shall have a capacity of 92 g.p.m. with not more than 8 pounds pressure drop

b. Perform, or arrange and pay to have performed all necessary excavating, grading and back filling, repairs to street and sidewalks, and trench work required for the installation of the new water supply line from street to main building.

c. Provide water pressure reducing station complete with valves, gauges, water hammer arrestors and accessories as shown on drawings.

20. Cold Water, Hot Water and Hot Water Circulating Piping:

a. All water piping shall be type "L" hard drawn copper tube assembled with sweat solder type cast brass or wrought copper fittings type solder recommended by tubing manufacturer. Copper tubing shall comply with Federal Specification WW-T-799a.

b. All water pipe lines shall be of sufficient size to adequately supply the fixture or fixtures they serve, and no riser except brass or copper shall be less than 3/4" diameter.

21. Gas Piping System:

a. This Contractor shall furnish, install, and connect up complete, the necessary gas system indicated on the Drawing or hereinafter specified. The service connection from gas main in street to meter including meter, regulating equipment, shut off valves, pipe, fittings, etc., shall be arranged and paid for by Plumbing Contractor, or have the Gas Company provide and install same.

b. He shall provide and install complete system of gas piping from the meter outlet to all indicated or required outlets.

c. He shall connect gas piping to:
   1. Water Heater.
   2. Gas fired heating boiler.

d. He shall connect gas piping to the gas water heater. This gas line shall be adequate to supply 72 c.f. per hour of natural gas (1,000 B.T.U. per cu. ft.) at 8" of water column at water heater location.

e. He shall connect gas piping to gas fired heating boiler. This line shall be adequate to supply 2020 c.f. per hr. of Natural gas (1,000) B.T.U. per cu. ft. at 8" of water column at boiler location.

f. He shall provide and install drip pockets, and other devices and provisions according to best standard practice.

g. Provide manual gas shut-off cock in gas line to each piece of equipment. Gas cocks shall be full throated type Rockwell-Nordstrom Fig. 114, or approved equal, with operating wrench.

h. All gas piping except as otherwise required by Local Gas Company or the A.G.A. or N.B.F.U. requirements, shall be black standard weight genuine wrought iron with galvanized malleable iron beaded fittings.

i. All workmanship and materials shall be in accordance with the requirements of the N.B.F.U., the American Gas Association, and the Local Gas Company.

j. Plumbing Contractor shall make all required tests of the gas system and correct all leaks, and he shall arrange and pay for all required inspections, permits and certificates and deliver to Owner all such documents to which Owner may rightfully be entitled.

22. Valves:
    a. Each fixture and branch lines shall be valved separately and valves shall be located so they are easily accessible.
    b. All valves shall be brass, wedge gate, with non-rising stem and gland in the stuffing box with screwed ends and suitable for working pressure and at temperatures to which they will be subjected. (Valves in by-pass lines only shall be globe pattern.)
    c. They shall be the product of Walworth, Crane or Jenkins Bros.
    d. Provide an A.S.M.E. approved and stamped type brass pressure and temperature relief valve on the hot water heater.
    e. Except where a Janitor's Service Sink is provided on a floor, there shall be provided in one men's toilet room a hose bibb on the cold water supply line. It shall be located under the lavatory and high enough to allow pails to be placed under. (Where no men's toilet is on the floor, provide such drain valve in one women's toilet room). Hose bibb shall be 3/4" size American Standard or approved equal, # R-7226.
    f. There shall be no valve between the boiler or hot water heater and the relief valve.
    g. All lavatories, sinks, urinals and water closets shall have removable key type compression valves on all hot and cold water supply lines, easily accessible.
    h. Provide an approved 1/2" compression type hose bibb near the meter to drain the system.
    i. Provide an approved 3/4" compression type hose bibb in the Air Conditioning Room to drain the Air-Conditioning System.

23. Air Chambers: Each connection to a faucet or valve, and top of hot and cold water risers shall be extended at least 12 inches forming an air chamber. It shall be of the same size and material as the pipe to which it is connected and securely capped to prevent leakage.

24. Sill Cocks: Provide and install in show window bulkhead where indicated on Plans, approximately 8 inches above the base, a key operated polished brass Freeze-Proof wall hydrant, Zurn Company Z-1396, with polished nickel bronze ("white metal") front plate. The supplies shall be 3/4" fitted with brass stops and waste cocks on inside of building with proper pitch and connected to house supply line.

25. Escutcheon Plates: All exposed pipes passing through walls, ceilings or floors shall have plain brass chromium plated finished escutcheon plates.

26. Metal Finish: All exposed metal work and trimmings for toilet room fixtures, to include traps, wastes, faucets, valves, hinges, piping, etc., shall be chromium plated.

27. Hot Water Heater: Provide, set and connect where indicated on Plans or directed an automatic gas fired water heater, Ruud Mfg. Company's Alcoa Alloy Standard Series, Model A.S.T. 60-60 with approximately 60 g.p.h. at 100° performance rating. Water heater shall have an input of 71,500 B.T.U. per hour, and shall be complete with 4" diameter flue, draft diverter, temperature regulating valve, A.S.M.E. 3/4" pres-

sure and temperature relief valve, Rudd 1" size # 420 D-3 circulating pump with built in factory set control, combination drain cock and return fitting, gas pressure regulator, 100% safety pilot and burner controls.

28. Asbestos Flue:
   a. Cement asbestos or "TRANSITE" flue pipe for water heater shall be size indicated on Drawings, and shall be equal to cement asbestos flue piping as manufactured by the JOHNS-MANVILLE COMPANY. Piping shall be tapered at both ends to receive coupling and cone ventilator.
   b. Ventilators shall be of the "cone type" and of size to suit proper connection with flue pipe, and shall be equal to asbestos ventilator as manufactured by the JOHNS-MANVILLE COMPANY, and shall extend 3' above roof, and 3' above any wall or parapet within 10'-0" of flue.

   c. All fittings, coupling and jointing shall be performed according to manufacturer's instructions, and cements and jointing compounds be of approved quality equal to manufacturer's product.
   d. Comply with N.F.B.U. and Local Gas Company requirements.

29. Sump Pump: Provide a 4" Diameter plugged opening in waste pipe in ground floor ceiling to receive discharge from future sump pump to be installed in future elevator pit.

30. Insulation:
   a. The plumbing work shall include the insulation of all piping, equipment, etc., as hereinafter specified. All insulation and workmanship shall be first quality in every respect and installed only by Qualified Asbestos Worker Mechanics and Improvers under the supervision of a qualified insulation foreman.
   b. All concealed hot water, hot water circulating and cold water piping and condensate drain piping from packaged type air conditioning unit within the building shall be insulated with Owens-Corning, or equal, 3/4" thick with factory applied universal vapor barrier jacket stapled and banded in place. Bands shall be on not more than 18" centers. Vapor seal joints in jacket on all cold water and condensate drain piping insulation. Insulate fittings with 3/4" thick mineral wool cement and water proof sealer.
   c. All exposed hot water, hot water circulating and cold water piping (in boiler and equipment rooms, etc.) shall be insulated same as for concealed pipe except insulation shall have factory applied canvas jacket. Seal jacket of pipe and fitting insulation with "Arabol", or equal, adhesive.
   d. All rainwater piping, both vertical and horizontal, together with fittings shall be insulated with two layers of 2" thick "Fiberglas", or equal, AEROCOR 3/4# density blanket with .0025" aluminum vapor barrier. Wire blankets on 12" maximum centers using #18 gauge galvanized tie wire. Lap and stagger all joints.
   e. Waste pipe, both vertical and horizontal, together with fittings for same which serve the floor drain in the Penthouse Air Conditioning Equipment Room shall be insulated from the drain throughout building to ground floor level. Insulation shall be same as specified for rainwater piping with additional outer covering of glass fabric membrane and 1/8" thick layer of Laycold Weathercoat Mastic.

31. Condensate Drain Pipe: Condensate drain pipe from office area air conditioning unit shall be galvanized genuine wrought iron with galvanized cast iron recessed drainage fittings. Provide cleanouts in line as shown on the drawings and as required for proper cleaning of pipes. Insulate as hereinbefore specified.

32. Fixture Installations: All fixtures shall be installed and connected to the supply lines with unions to permit easy removal of the fixtures.

33. Fixtures: "Crane" and "Standard" make fixtures are specified. (Exposed metal parts of all fixtures are to be chromium plated.)
    a. Lavatories: P-3367-71 "STANDARD" HEXALEG 20 x 18" cast iron, enameled lavatory complete.
    b. Water Closets:
        1. CRANE 3-300-T "SANTON" vitreous china closet.
           CHURCH #2500 "Sani-Black" hard rubber elongated rim, open front, closed back seat less cover and with molded check hinge.
           Cast iron floor flange with nuts, bolts, and gasket.
           China bolt caps.
           SLOAN "Royal" # 110-FYV flush valve.
           or
        2. P-2223-8 "STANDARD" MADERA elongated closet.
           CHURCH #2500 "Sani-Black" seat
           SLOAN "Royal" # 110-FYV flush valve.
    c. Urinals:
        1. CRANE 7-80-T "NEU-RIO" vitreous china urinal.
           Long through supporting bolts attached to iron fish plates with cap nuts and washers.
           SLOAN "Royal" # 180 YV flush valve.
           or
        2. F-6230-1 "STANDARD" CASAL vitreous china urinal.
           Long through supporting bolts attached to iron fish plates with cap nuts and washers.
           Sloan "Royal" # 180 YV flush valve.
    d. Service Sinks:
        1. CRANE 7-563, 24 x 20" service sink.
           or
        2. P-7700-3 "STANDARD" ARGO 24 x 20" service sink.
           R-5001 Double sink faucet, bucket hook and hose end.
           R-4551-2 plug with metal grid.
    e. "GENERAL-CHEF" Combination Unit: This unit will be furnished by the J. C. PENNEY COMPANY but this Contractor will be required to connect this unit to the plumbing system including water, drain, vent and all other piping as required.
    f. Drinking Fountains: Drinking fountains will be furnished by others and this Contractor shall receive and install them providing all necessary and required supply, vent, waste lines, traps, valves, fittings, etc.

DIVISION 21

SPRINKLERS

21-A SCOPE OF WORK:

Furnish and install all sprinkler protection equipment, all necessary apparatus, valves, fittings, piping both interior and exterior, identification, etc., as required for a complete and satisfactory, fully automatic sprinkler system installation throughout. All piping in sales portion of building shall be concealed. Comply with all requirements of National Board of Fire Underwriters bulletin No. 13.

21-B INCIDENTALS:

1. Ordinances and Permits:
   - a. All workmanship and materials shall conform to all ordinances and regulations of the State, County, City or other authority having jurisdiction. This Contractor shall obtain, at his own expense, all permits necessary for the installation of this work and shall obtain and deliver to the Architect, without charge, all certificates of tests and inspections. National Board of Fire Underwriters and Southeastern Underwriters Association requirements must be observed on all equipment and the installation of the system.
   - b. Contractor shall submit sufficient copies of shop drawings to Southeastern Underwriters Association for approval by same. Contractor shall submit six copies for Southeastern Underwriters Association certification of approval tegether with six copies of system shop drawings to Architect for approval.

2. Intent: The work to be done under this Division of the specifications includes the furnishing of all labor, materials and services necessary for and reasonably incidental to the sprinkler work as hereinafter specified and indicated on accompanying drawings.

3. Drawings: Mechanical drawings are diagrammatic, showing the general arrangement, approximate location of piping and apparatus. Refer to the architectural drawings for all dimensions and locations.

4. General Conditions: Attention is called to the General Conditions and other Divisions of the Specifications which affect the work under this Division; Sprinkler Contractor shall refer to same before submitting his bid.

5. Cutting and Repairing: The work shall include all cutting and repairing of walls, floors, ceilings, etc., necessary for the installation of the work. However, no cutting shall be done without permission of the Architect.

6. Excavation and Backfill: All excavation required for his work and subsequent backfill shall be done by this Contractor. Backfill shall be well tamped, placed in layers not over six inches (6") thick. Pay all costs for street and sidewalk repairs.

7. Materials & Workmanship:
   a. All materials and equipment shall be installed and completed in a first-class workmanlike manner. The Architect and/or Engineer reserves the right to direct the removal and replacement of any item which, in his opinion, does not present an orderly and reasonably neat or workmanlike appearance, provided such items can be properly installed in such orderly way by usual methods in such work. Such removal and replacement shall be done, when directed in writing by the Architect and/or Engineer, at this Contractor's expense and without additional expense to the Owner.
   b. All materials shall be new.
   c. During construction, protect all equipment and materials against damage from impact, weather conditions, or otherwise.

8. Equipment Selection: Where equipment is specified herein or on drawings by manufacturer's name and/or number, this shall denote the minimum requirements as to quality, capacity, type, function and/or performance. Proposed substitute equipment must be submitted to the Architect for approval within two (2) weeks after award of contract. All must meet National Board of Fire Underwriters approval requirements.

9. Guarantee: This Contractor shall provide the Owner with a guarantee covering defective workmanship and materials for a period of one (1) year after acceptance by the Architect or Owner. All equipment shall be covered by this guarantee and the manufacturer's guarantee shall not relieve this Contractor of any responsibility for any equipment furnished under this specification.

10. Tests:
   a. All materials used in this work shall be tested by the manufacturer before shipment.
   b. All piping and equipment shall be tested according to National Board of Fire Underwriters Bulletin No. 13 requirements.
   c. All piping shall be absolutely tight under test.
   d. Screwed piping which is not tight under test shall be taken down and reassembled. Joints in cast iron piping not tight under test shall be dug out and the joints repoured and caulked.

11. Cleaning Up: This Contractor, after the completion of his work, shall remove all surplus material, broken and damaged fittings, waste pipe, etc., brought to the premises for use in his work. He shall also remove all debris caused by his work and shall leave the premises thoroughly clean to the satisfaction of the Architect.

12. As-Built Drawings: As the work progresses, the Contractor shall keep complete records of any changes from the contract drawings. After completion of the work, he shall transfer all changes to reproducible tracings and deliver to Owner.

13. Instructions: Upon completion of the work, the Contractor shall instruct the Owner's representative in the proper operation and care of all equipment. He shall, also deliver a bound set of all instruction and maintenance bulletins on all equipment installed under this contract.

21-C MATERIALS AND INSTALLATIONS:

1. General for Pipe Installation:
   - a. Horizontal pipe shall be carried with a minimum fall of 1/4" in 10 feet.
   - b. Unions shall be provided as necessary and shall be of types approved for sprinkler systems.
   - c. Reducing fittings shall be used in making reductions in size of pipe.
   - d. Steel pipe shall be well reamed after cutting and each pipe shall be turned on end and all loose dirt, scale, etc., shall be knocked out.
   - e. Provide all concrete pits required for underground valves and accessories.
   - f. All tess, plugs, and bends in underground cast iron mains shall be anchored by means of the tie-rods or concrete backing as described in National Board of Fire Underwriters Bulletin No. 13.
   - g. All underground piping shall have 3'6" minimum cover over top of pipe.

2. Pipe General:
   - a. All pipe shall be made in accordance with the "Standard Specifications" of the American Society for Testing Materials for pipe of each material.
   - b. Each length of pipe, fitting, and device used in the system shall be stamped or indelibly marked, with the weight or quality thereof and the maker's name or mark.

3. Piping and Fittings:
   - a. All piping within the building shall be standard weight black steel pipe with banded black cast iron fittings of 125 lbs. S.W.P., 175 lbs.
   - b. All outside and underground piping shall be AWWA class D, 175 lbs. cast iron pipe and fittings.

4. Valves, General Requirements: Underwriters approved type valves, shall be furnished and installed as shown on the drawings and as specified. All valves shall be of the same manufacture.

5. Sprinkler Heads: Sprinkler head shall be Underwriters approved spray type heads of degree rating required for area being served. Heads shall be of the upright or pendant type as required. All heads in sales portion of building shall be chrome plated pendant type heads with chrome plated ceiling plate.

6. Alarm Equipment: Automatic alarm equipment shall be provided at sprinkler service connections and shall be Grinnell Corporation water flow alarm, or Underwriters approved equal.

7. Electrical Equipment and Wiring: All control wiring and devices required for the operation of the system shall be furnished and installed under this section of the specifications, unless shown on the electrical plans or called for under the electrical section of the specification. Wiring, raceways, boxes, etc., for same shall be furnished and installed under this section of the specifications and in accordance with the applicable sections of the electrical specifications.

8. Extra Sprinkler Cabinet and Heads: Provide and install standard sprinkler head cabinet complete with wrench and extra sprinklers for each temperature and type heads on the job as recommended in National Board of Fire Underwriters Bulletin No. 13.

9. Fire Department Connection: Provide chrome plated type shown on drawings. Check siamese fire department connections and threads with Local Fire Department.

DIVISION 22

HEATING, VENTILATION & AIR CONDITIONING

22-A SCOPE OF WORK:

Complete Heating, Ventilating and Air Conditioning systems including but not limited to the following: boiler, condensing units, cooling tower, pumps, fans, ductwork, piping, insulation, grilles and diffusers, controls and all electrical wiring as indicated on drawings and hereinafter specified.

22-B INCIDENTALS:

1. General:
   - a. These specifications are of the abbreviated or "streamlined" type and include incomplete sentences: Omission of words or phrases such as "the Contractor shall", "in conformity therewith", "shall be", "as noted on the Drawings", "according to the plans", "an", "the" and "all" are intentional. Omitted words or phrases shall be supplied by inference in the same manner as they are when a "note" occurs on the Drawings. Words "shall be" or "shall" will be supplied by inference where colon (:) is used within sentences or phrases.
   - b. Mention herein or indication on the drawings of article, materials, operations, or methods requires that the Contractor provide therefor all necessary labor, equipment and incidentals.
   - c. All work subject to the General Conditions.
   - d. All material, equipment and work: subject to written approval of the J. C. PENNEY COMPANY, INC., Construction Division.
   - e. Submit with bid; complete list of equipment proposed to be furnished, with manufacturer's catalog number indicated for each piece of equipment; list of subcontractors proposed if awarded the contract.
   - f. Failure to submit such lists or submittal of an incomplete list will be sufficient reason to disqualify bidder.

2. Substitutions:
   - a. Submit proposals based upon furnishing materials and equipment strictly in accordance with types and makes as specified hereinafter.
   - b. Bidders may also submit alternate bids on substitute equipment provided such alternates show the price change, if any, from the Base Bid.
   - c. The term "or equal" used hereinafter means "as approved equal by the Construction Division of the J. C. PENNEY COMPANY, INC."

3. Equipment List and Data:
   - a. To Owner, Architect, or Mechanical Engineer: prior to awarding mechanical contract, and beginning work, submit to J. C. PENNEY COMPANY, INC. for approval "Equipment Selection" forms in triplicate containing all detail information called for on equipment selection list furnished the Owner, Architect or Mechanical Engineer by J. C. PENNEY COMPANY, INC.

b. Unless otherwise instructed, order no equipment until "Equipment Selection" forms have been unconditionally approved.

4. Drawings:
   a. Mechanical drawings are diagrammatic, showing the general arrangement and approximate location of apparatus and piping. Refer to architectural plans for all dimensions and locations.
   b. Attached Standard Detail Sheets are a part of the Contract Drawings and Specifications.

5. Shop Drawings and Data:
   a. Send shop drawings, etc. specified to be submitted to J. C. PENNEY COMPANY, INC., Construction Division for approval, same to be revised and resubmitted as required for final approval.
   b. Prior to beginning work, and within 30 days from the date contract is signed, submit four copies each of the following shop drawings or diagrams:
      1. Pneumatic Control Diagram.
      2. Electrical Interlock Wiring Diagram.
   c. Drawings and diagrams to show: all pipe, ducts and wire sizes; manufacturer's name and catalog number of each piece of equipment to be used.
6. Conformity to Codes, Laws and Ordinances:
   a. Obtain and pay for all permits, inspection certificates, etc. required, and turn them over to the Owner upon completion of the job.
   b. The entire installation shall be installed in accordance with the City of Athens Heating, Ventilating and Air Conditioning Code, City Building Code, and National Board of Fire Underwriters.

7. Materials and Workmanship:
   a. Where materials or apparatus other than that specified is furnished, all necessary redesign, drawings and rearrangements or increase in quantity of materials shall be provided by the Contractor, subject to approval of the Architect and J. C. PENNEY COMPANY.
   b. During construction all materials and equipment shall be protected against damage from impact, weather conditions, or otherwise.
   c. All materials shall be new.

8. Space Conditions:
   a. All materials or equipment furnished shall conform to the space limitations.
   b. Maintain maximum headroom and space conditions at all points.
   c. Coordinate with other Divisions of the work to avoid interferences.

9. Cutting and Repairing: Refer to General Conditions and Supplementary General Conditions.

10. Design Conditions:
   a. Cooling:
      1. Outside 96° D.B., 76° W.B.
      2. Inside 80° D.B., 50% R.H.
   b. Heating:
      1. Outside 15°F.
      2. Inside 70° F.

11. Cleaning Duct System:
   a. Upon complete installation of ventilating ducts, clean entire system of rubbish, plaster, dirt, etc. before installing any grilles, outlets, or registers.
   b. After installation of grilles, registers, and outlets and connections made on the fan & office unit, blow out each system with all dampers, grilles, registers and outlets wide open.

12. Cleaning of Piping Systems: Thoroughly flush all water piping before placing pumps in operation. After pumps have been placed into operation, clean strainers a sufficient number of times to remove all scale.

13. Testing & Adjusting: After completion of the various portions of work, make following tests. Furnish all instruments, test equipment and personnel to carry out tests.
   a. Duct System: Operate various fan and blower systems; do all adjusting and balancing required to obtain delivery of air quantities shown on plans at each grille, outlet, and register. Air handling equipment to perform with least possible noise and vibration consistent to its respective duty. After making all adjustments, make a final test and tabulate air volumes and turn over three (3) certified copies thereof to J.C. PENNEY COMPANY, INC., Construction Department.
   b. Hot Water & Condenser Water Systems: Prior to painting, insulating, backfilling, or concealment within building, thoroughly flush out all piping and connections, then subject system to 100 lb./sq. inch gauge hydrostatic test pressure. Make tight any leaks. Repeat tests until system proven tight.
   c. Refrigerant Piping: Thoroughly clean with carbon tetrachloride, then test with carbon dioxide or nitrogen to 250 lbs/sq. inch gauge pressure. Repair leaks and replace faulty materials. Then evacuate lines of air, gas and moisture with vacuum of 29.75 inches of mercury. Repair leaks and replace faulty materials, and repeat tests until specified vacuum is maintained and held without loss over 48 hour period.

      Final inspection will not be made until system is properly adjusted and operated for at least 96 hours.
   d. Tests: Make such additional tests as required by J. C. PENNEY COMPANY, INC. to obtain following information:
      1. Amperage input to each phase of each motor.
      2. R.P.M. of each fan or blower.
      3. C.F.M. capacity of each fan or blower.
      4. Outlet velocity each fan or blower.
      5. B.T.U. capacity of each refrigeration compressor.
      6. B.T.U. capacity of each refrigeration condenser.
      7. Face velocity of cooling coils.
      8. Dry bulb temperature of air supply under design conditions.
      9. Wet bulb temperature of air supply under design conditions.
      10. Air quantity at each grille, register, or outlet.
      11. Face velocity of heating coils.
      12. Such other tests as required to indicate fulfillment of these specifications.
   e. Tabulate results of these tests. Submit three (3) certified copies thereof to J. C. PENNEY COMPANY, INC.

14. Painting:
   a. Condenser water piping on roof and/or exterior of buildings: paint three (3) coats of lead and oil paint after piping is completely installed.
   b. Cooling tower superstructure: paint three (3) coats of lead and oil paint prior to installation of tower superstructure.
   c. Condensate drip pans: paint three (3) coats of black asphaltum paint prior to installation.
   d. Damaged finish of equipment: repaint to match original factory finish.

15. Guarantee:
   a. Within twelve months from final acceptance by J. C. PENNEY COMPANY, INC., repair all defective material and work; replace with new materials and/or equipment, any materials and/or equipment failing to give satisfactory service; replace refrigerant or oil lost; all at no cost to Owner or J. C. PENNEY COMPANY, INC.
   b. Further guarantee that all equipment, materials, etc. meet requirements of these specifications.
   c. Perform all adjustments, balancing, etc., necessary during the guarantee period.

16. Service:
   a. Furnish J. C. PENNEY COMPANY, INC., four (4) bound sets of complete operating instructions covering entire Heating, Ventilating, and Air Conditioning system. Instruct designated representative of J. C. PENNEY COMPANY, INC. in proper operation and care of entire system.
   b. Provide service, free of charge, on entire system for a period of ninety days (90 days) from date of final acceptance by J. C. PENNEY COMPANY, INC.

17. Instructions:
   a. Turn over to Owner and J. C. PENNEY COMPANY all operating and maintenance instructions on all equipment.
   b. Operating and maintenance instructions shall be complete and properly inserted in a suitable hard back type binder.

22-C MATERIALS AND INSTALLATIONS:

1. Foundations & Supports: Of correct location and sizes, for and to fit, for proper installation of all equipment furnished under the Contract.

2. Vibration Eliminators: As manufactured by Vibration Eliminator Company, Long Island City, N.Y. or equal; required by each motor driven piece of equipment.

3. Hangers:
   a. For Ducts: Of sizes and spacing recommended in the latest edition of A.S.H.A.E. Guide. Secure hangers to building structural members with bolts or screws. Nails not permitted.

b. For pipes: Adjustable type expansion hangers. Maximum spacing: 8'0" on centers. Strap iron not permitted. Furnish and install all inserts, bolts, expansion shields, clamps, etc. for supporting pipe.

c. For insulated piping: Size hangers to permit installation of insulation through hangers. Protect insulation with metal protectors.

4. Flashing: Flashing and counter flashing required where ducts and pipes pass through roof and/or walls: to be done by others.

5. Duct Work:

a. Fabricate: all duct work and plenums of sizes shown on plans, in accordance with recommendations outlined in latest edition of A.S.H.A.E. Guide; of galvanized sheet metal of the following sheet metal gauges:

U.S.STD. GAUGE	MAXIMUM SIDE INCHES	TYPE OF JOINTS	BRACING
26	Up to 12	S. Drive, Pocket or Bar Slips on 7'10" centers.	None
24	13 to 24	S. Drive, Pocket or Bar Slips on 7'10" centers.	None
24	25 to 30	S. Drive 1" Pocket or 1" Bar slips on 7'10" centers	1 x 1 x 1/8" angles 4' from joint.
22	31 to 40	Drive 1" pocket or 1" Bar Slips on 7'10" centers.	1 x 1 x 1/8" angles 4' from joint.
22	41 to 60	1-1/2" angle connections, or 1-1/2" pocket or 1-1/2" Bar Slips with 1-3/8" x 1/8" bar reinforcing on 7'10" centers.	1-1/2 x 1-1/2 x 1/8" angles 4' from joint.
20	61 to 90	1-1/2" angle connections or 1-1/2" pocket or 1-1/2" Bar Slips, 3'9" maximum centers with 1-3/8" x 1/8" bar reinforcing.	1-1/2 x 1-1/2 x 1/8" diagonal angles, or 1-1/2 x 1-1/2 x 1/8" angles 2' from joint.
18	91 and up	2" angle connections or 1-1/2" pocket or 1-1/2" Bar Slips 3'9" maximum centers with 1-3/8" x 1/8" bar reinforcing.	1-1/2 x 1-1/2 x 1/8" diagonal angles, or 1-1/2 x 1-1/2 x 1/8" angles 2 ft. from joint.

b. Cross break flat sides of ducts. Provide turning vanes as manufactured by Tuttle & Bailey Company or equal, in all square elbows and as indicated elsewhere on plans; make all other 90 degree bends with a center line radius of not less than 1-1/2 times diameter of respective duct.

c. Reduction from one duct size to another; make gradual with maximum angle slope of 30 degrees.
d. Joints: smooth and tight with all duct work firmly fastened in place.
e. Support: horizontal ducts; with hangers secured to construction above at intervals not to exceed 8'0"; vertical ducts at each floor; with angle iron rests secured to ducts.
f. Fabricate to prevent seams or joints being cut for installation of grilles, registers, or outlets.

6. Dampers:
   a. Automatic: Bronze oilite bearings and 6" wide opposed acting blades equal to Johnson Service Company's No. D-225.
   b. Manual: Multi-louvre type equipped with Young Regulator No. 301.
   c. Fire: Install in full accordance with standards outlined and described in National Board of Fire Underwriters Pamphlet # 90.
   d. Splitter: To balance air flow. Install at junction point of each branch duct and equip with external handle and locking device. On ductwork in finished ceilings, use Young Regulator No. 301.
   e. Volume Control Damper: Equal to Titus Manufacturing Company's AG-45. Install behind each supply grille.
   f. Equip each ceiling outlet with an air volume controller and equalizing deflectors.

7. Canvas Connections: Eight ounce asbestos canvas, 6 inches wide, folded to three (3) thicknesses; provide, on fan discharge and unit openings between unit and ducts and/or as noted on drawings; fasten thereto by folding over and under a 1-1/2 inch wide iron collar, with a 1-1/2 inch wide collar over same secured with machine bolts and properly waterproofed.

8. Access Doors: Provide where indicated on plans and as necessary for adjustment of dampers and cleaning of coils, ducts, fans, etc. Of double skin type with space between skins filled with 3/4" thick Fiberglas "Vapor Seal" duct insulation 6 lb. density, complete with heavy brass hinges, sash type locks, asbestos gaskets and handles. Equip with frames having angle protection or extended collars for covering, so arranged to permit opening of access doors after covering is applied.

9. Grilles, Outlets and Registers:
   a. Supply grilles and registers, return air grilles and registers, exhaust grilles and registers and ceiling outlets; of type, size and accessories as shown on the drawings. Furnish in prime coat finish.
   b. Grilles and registers as manufactured by Titus Manufacturing Corporation, Tuttle & Bailey Company, Stewart Manufacturing Company, Barber-Coleman Company, or equal.
   c. Ceiling outlets as manufactured by Anemostat Corp., Tuttle & Bailey Company, Barber-Coleman Company, or equal.
   d. For furred duct work; provide grilles, registers, and outlets with plaster frames or suitable grounds and/or plaster rings.

e. Install ceiling outlets in accordance with J. C. PENNEY COMPANY, INC. Standard Detail No. M-127.

10. Exhaust Fans & Exhaust Hoods:
    a. As required by contract drawings; complete with automatic shutters, foundations, vibration eliminators, electric wiring, duct work, etc. with fans of size, type and manufacture as indicated on the contract drawings.
    b. Exhaust fan motors; wound for 208 volt, 60 cycle, 3 phase A.C. for over 1/2 h.p.: wound for 120 volt, 60 cycle, single phase A.C. for 1/2 H.P. and under.

11. Blower: As manufactured by Trane Company, B.F. Sturtevant Company, Clarage Fan Company, American Blower Company or equal; double width, double inlet centrifugal blower of the backward inclined type, equipped with anti-friction type ball bearings; balanced both statically and dynamically; minimum capacity 29,805 C.F.M. against a static pressure of 1-7/8 inches of water with air at a temperature of 70 degrees F., an altitude of 800 feet and outlet velocity not to exceed 1600 F.P.M.

    Mount motor and blower on a common vibration absorbing base of type recommended by blower manufacturer.

12. Blower Motor: As manufactured by General Electric Company, Westinghouse Electric Company, or equal; of high starting torque, 15 H.P., 208 volt, 60 cycle, 3 phase, A.C.; equipped with sealed ball bearings, magnetic motor starter, push button station and pilot light; mounted on adjustable steel rails.

13. Blower & Motor Drive:
    a. Multiple "V" belt type providing an adjustment of at least: 10% on the high side and 10% on the low side, of the original selected speed.
    b. Drive assembly: sized 40% larger than motor horsepower required by blower; equip with metal guard approved by the State Industrial Commission.

14. Filters & Frame:
    a. Frame: as manufactured by Owens-Corning Fiberglas Corporation or Pittsburgh Plate Glass Company; consisting of nine (9) cells wide and four (4) cells high with two 20" x 20" x 1" filters in each cell.
    b. Prior to date of final inspection, install an additional set of thirty-six (36) 20" x 20" x 1" filters.
    c. Do not operate or permit system to be operated until the filters have been properly installed.

15. Refrigeration Condensing Units:
    a. Required two (2) Freon-12 units of reciprocating type, as manufactured by Trane Company, Carrier Corporation, York Corporation, Worthington Company, or equal; each unit having a minimum capacity of 41 tons, 492,200 B.T.U. when operating at a suction temperature of 43 degrees F., a condensing temperature of 105 degrees F. and a .0005 fouling factor when supplied with 120 G.P.M. of water at entering temperature of 86 degrees F. and leaving temperature of 96 degrees F.; each complete with recip-

rocating compressor, drive assembly, drive guard, high and low side gauges panel mounted, service valves, forced feed lubrication system, liquid refrigerant indicator, oil level indicator, A.S.M.E. stamped shell and tube condenser, rupture disk pressure relief valve set at 225 lb. per sq. in. gauge, primary resistance reduced voltage motor starter or part winding increment type motor starter of type approved by the local power company, with a high starting torque 40 H.P., 208 volt, 60 cycle, 3 phase, ball bearing motor and all incidental items to form a complete unit mounted on a common steel base.

b. Each compressor, equip: with oil failure, low suction pressure and high condensing pressure safety devices; externally or internally controlled capacity reduction devices to provide two (2) steps of equal capacity; 500 watt crank case heater with integral thermostat, hot gas muffler; and all other necessary and required safety devices.

16. Heat Exchangers: Required two (2) liquid suction type as manufactured by Acme Industries, Bell & Gossett, or equal; to have same nominal tonnage rating as the evaporators served; locate as close to evaporators as space limitations permit.

17. Oil Separators: Required one in connection with each condensing unit: Model FK-3050, as manufactured by Acme Industries or equal; of automatic type; having a nominal rating of 30-50 tons.

18. Refrigerant Piping:

a. As indicated on J. C. PENNEY COMPANY Standard Details M-205 & M-246 for complete automatic operation of the refrigeration cycle; install in accordance with standard engineering practice as recognized by the American Society of Heating and Air Conditioning Engineers; to have: solenoid and expansion valves as manufactured by Sporlan Valve Company; hand valves of packless type; sight glasses with removable protective covers; strainers; etc. as required; refrigerant piping fabricated from type K copper pipe with streamline or forged brass fittings with joints silver soldered or brazed.

b. After installation, subject all lines to 250 lb/sq.in. test pressure, then evacuate the lines with a vacuum of 29.75 inches mercury for a 48 hour period without loss. Before placing in operation, system to be completely evacuated, dehydrated and free from leaks.

19. Charge of Refrigerant: Provide a complete charge of Freon-12 refrigerant and dehydrated refrigerant oil for normal operation of the system.

20. Liquid Receivers: When refrigeration condensers as furnished and approved do not have sufficient capacity to contain the entire refrigeration charge of the system when filled to not more than 80% of their net cubic capacity, then provide a liquid receiver for each condensing unit of sufficient size to store its complete refrigeration charge; to be of manufacturer's standard construction bearing A.S.M.E. stamp and provided with safety relief valve and purge valve in addition to valved liquid inlet and outlet connections. Provide supports as made by the receiver manufacturer.

21. D.X. Cooling Coils:

a. Required four (4) direct expansion cooling coils of extended surface type, designed and serpentined for Freon-12 refrigerant in accordance with design conditions; approved by the Underwriters Laboratories; with each cooling coil of six (6) row 84 inch x 24 inch; as manufactured by Trane Company, Kennard Corporation, or equal; to have 82 tons minimum combined capacity when cooling 29,400 C.F.M. of air at an altitude of 800 feet from an initial temperature of 83.2 degrees F.D.B. and 68.8 F.W.B. to a final temperature of 59.0 degrees F.D.B. and 58.0 degrees F.W.B. when operating at suction temperature of 45 degrees F; fins to be continuous across face of coil, of plate type constructed of aluminum mechanically bonded to 3/4" O.D. tubes having .035" minimum wall thickness.

b. Maximum face air velocity through coils: 525 F.P.M. with air friction not to exceed .465 inches of water with wetted surface.

c. Equip each coil with: metering type liquid distributor header; double header arrangement with two distribution headers and two suction headers arranged for face control.

d. Provide each coil section: with a galvanized steel casing of not less than 16 gauge; bolting flanges on all sides of not less than 2-1/4" wide. Provide intermediate tube support sheets for coils having tube lengths in excess of 48 inches.

e. Coils to be factory tested against leaks, completely dehydrated and shipped with a Freon holding charge.

22. Cooling Tower (Induced Draft):

a. Required one (1) low height, induced draft type as manufactured by the Marley Company, Kansas City, Mo., J. F. Pritchard Company, Kansas City, Mo., or equal, of 106 tons minimum capacity when cooling 320 G.P.M. of water from 95 degrees F. initial temperature to 85 degrees F. final temperature when operating at 77 degrees F. wet bulb temperature; fabricated to withstand 100 miles per hour wind pressure; complete with J. C. PENNEY COMPANY INC. special galvanized steel side outlet sump with three (3) outlets, two outlets sized 4 inches and one outlet sized 2 inches redwood framing with 3/8" corrugated single cement asbestos board casing, flat cement asbestos board casing, flat cement asbestos board louvers, redwood fill, gear drive, adjustable pitch fan, automatic float controlled make-up valve, 5 H.P., 208 volt, 60 cycle, three (3) phase sealed ball bearing motor, ladder, galvanized steel fan guard, and all incidental items to form a complete unit. One 4 inch outlet to have blind flange for future connection.

b. Cooling tower manufacturer shall also include galvanized steel anchor bolts.

c. Provide in addition to tower: one (1) 2" drain valve on bottom of sump, 1-1/2 inch quick fill line, and thermostat to stop cooling tower fan when temperature of water entering condensers falls below predetermined setting.

23. Condensate Drip Pans: Fabricate of 12 gauge galvanized sheet metal, for cooling coils of the system.

24. **Condensate Drain Lines:** Provide properly piped trapped drains to nearest sanitary sewer line as follows: 1-1/2 inch from condensate drip pan for cooling coils of fan system; 1-1/2 inch from condensate drip pan for cooling coil of office air conditioning unit.

25. **Condenser Water Pumps:** Centrifugal type equipped with mechanical seal, as manufactured by Weil Pump Co., Ingersoll-Rand Company, Gould Pumps, Inc., Worthington Pump & Machinery Corp., or equal, connected direct to ball bearing motor, meeting the following specifications:
    a. **For Main Air Conditioning System:** Two (2) required; each having a minimum capacity of 120 G.P.M. against a head of 35 feet, directly connected to a 2 H.P., 1750 R.P.M., 60 cycle, three (3) phase, 208 volt motor.
    b. **For Self-Contained Air Conditioning Unit:** One (1) required; having a minimum capacity of 13 G.P.M. against a head of 34 feet, directly connected to a 1/2 H.P., 1750 R.P.M. 60 cycle, single (1) phase, 120 volt motor.

26. **Valves:** All valves required for water lines; of Jenkins make or equal, figure as indicated below:
    a. Globe, 2" and under; No. 106-a screwed bronze.
    b. Globe, 2-1/2" and over; No. 142 flanged iron body O. S. & Y.
    c. Gate, 2" and under; No. 64-U screwed bronze.
    d. Gate, 2-1/2" and over; No. 651-a flanged iron body O. S. & Y.
    e. Check 2" and under; No. 762-a screwed bronze.
    f. Check 2-1/2" and 3"; no. 763-a flanged bronze.
    g. Check 3-1/2" and over; No. 295 iron body flanged.

27. **Air Conditioning Unit (Self-Contained):**
    a. Required one (1) self-contained air conditioning unit, as manufactured by Westinghouse Electric Corp., Trane Co., Carrier Corp., or equal; complete with insulated and soundproofed casing, forward curved blower with ball bearing blower motor, direct expansion cooling coil, (hot water) heating coil, condensate drip pan, filter box, complete with filters, vibration isolators, expansion valves, solenoid valves, refrigeration compressor, shell and tube condenser with removable heads, ball bearing compressor motor, magnetic motor starters, of a type approved by the local power company and all incidental items to form a complete factory built unit.
    b. Blowers within this unit; of specified capacity with an outlet velocity not to exceed 1600 F.P.M. against the total unit resistance and an external static resistance of 5/8 inch.
    c. Cooling coil within this unit; of specified capacity with a face velocity not to exceed 550 F.P.M.
    d. Filters within this unit; of throw away type not less than two (2) inches thick with an air velocity through the filters not to exceed 350 F.P.M.

Cooling

Minimum Cooling Capacity (in tons)	4.7
When cooling air of (C.F.M.) at altitude of 800 feet	1910

From initial temperature of	
(degrees F.D.B.)	82.0
and (degrees F.W.B.)	68.4
To a final temperature of	
(degrees F.D.B.)	61.0
and (degrees F.W.B.)	59.0
When operating at a suction temperature of 45 degrees F, a condensing temperature of 105 degrees F. and when supplied with water of (G.P.M.)	13
entering at a temperature of (degrees F.)	86
and a .0005 fouling factor.	

Heating

Minimum heating capacity (B.T.U. hr)	87,500
When heating air of (C.F.M.)	1,910
At altitude of 800 feet	
From initial temp. of (degrees F.)	62
To final temp. of (degrees F.)	105
When supplied with hot water at entering temp. of 190° F. and leaving temp. of 170°F.	

Blower Motor

60 Cycle, ball bearing of (horse power)	3/4
Wound for (Volts)	208
Phase	3 ph.

Compressor Motor

60 Cycle, 3 phase ball bearing	
No. required	1
(Horse Power)	5
Wound for (Volts)	208

28. Pipe & Fittings:
    a. As required by the plans and details for proper installation of all condenser water, condensate drain, hot water, and supply piping; sized and installed in accordance with J. C. PENNEY COMPANY, INC. Standard Details, of numbers indicated below:
        1. Condenser water piping, Detail No. M-210A.
        2. Boiler room piping, Detail No. M-188.
        3. Blast coil piping, Detail No. M-192 and M-234
        4. Unit heater piping, Detail No. M-120A.
    b. All piping: of full sizes as shown on plans; ends reamed; threads cut sharp and true.
    c. Water Piping; Standard weight galvanized steel, with galvanized malleable fittings; grade and valve to permit complete draining to prevent winter freeze-up.
    d. Hot water piping; standard weight black steel with cast iron fittings.
    e. Fittings: screwed and/or flanged fittings to be used throughout; all valves 2-1/2" and over to be of flanged body type; provide sufficient unions of flanged fittings to permit removal of all equipment and piping where screwed fittings are utilized.
    f. Strainers; "Y" pipe line type with blow-off connection, semi-steel body and brass screen.

g. Expansion joints and anchors: hot water piping 100 feet or more, properly anchor and provide with expansion joints or loops. Properly anchor risers and provide means for expansion and contraction.

h. Swing connections: Provide at all points of expansion. Provide boiler headers with swing joints for expansion.

i. Sleeves and plates: Provide galvanized iron sleeves where pipes pass through floors, ceiling or partitions, as well as nickel-plated floor and wall plates.

29. Control System:

a. Furnish and install a pneumatic and/or electronic temperature control system complete with all instruments, controls, thermometers, control air piping, wiring, control panel boards, etc. for a complete automatic system.

b. Temperature control systems shall be manufactured, installed, supervised and guaranteed by the control manufacturer.

c. Pneumatic Controls: To be as manufactured by Minneapolis-Honeywell Regulator Company, Johnson Service Company, Powers Regulator Company, or equal as a part of the contractor's work, following J. C. PENNEY COMPANY Installation Standard Details # M-232A, M-285-A, M-133 and as specified in J. C. PENNEY COMPANY Standard Details # M-232B, and M-285B.

d. Electronic Controls: to be as manufactured by Barber-Coleman Company, or Minneapolis-Honeywell Regulator Company, as part of the Contractor's work, following the identical sequence of control operation as described above for the pneumatic control system with the following exceptions:

1. The hot deck controller shall be re-set by an outdoor air compensator.
2. An indicator shall be installed on the panel board to indicate the position of the maximum outdoor air damper.
3. Panel mounted dial thermometers may be replaced by an electronic temperature indicating system.
4. Low voltage control wiring shall conform to National Board of Fire Underwriters as minimum requirement except where made more stingent by local ordinances.
5. No wiring shall be run exposed without protective covering.
6. All damper and valve motors shall be of the oil submerged or immersed type.

30. Boiler: Completely automatic gas-fired Thermo-Pak Boilers, Inc. No. GW-2016 or equal, having minimum A.G.A. rating of 10,746 sq. ft. hot water radiation, minimum input of 2,016,000 B.T.U.; approved by both American Gas Association and the Underwriters Laboratories; complete with standard hot water trim, insulated steel jacket, gas burners, boiler anodes, ignition pilots, high-low gas valve, gas pressure regulator, limit control, remote bulb outdoor thermostat, control system T-3A and all incidental items necessary for a complete unit.

31. Boiler Accessories: Provide boiler with:
   a. McDonnell-Miller #63 low water cut-off; install in accordance with manufacturer's recommendations.
   b. One (1) inch cold water feed line with gate valve, strainer, automatic feed valve, pressure relief valve, and check valve.
   c. Remote bulb outdoor thermostat to start gas burner when outdoor temperature falls below 65 degrees F. and to stop burner when outdoor temperature exceeds 65 degrees F.; equip with manual selector switch for automatic-manual-off control.

32. Hot Water Circulating Pumps: Centrifugal type engineered for hot water; equipped with mechanical seal; as manufactured by Weil Pump Company, Bell & Gossett, Worthington Pump & Machinery Corporation, or equal:
   a. Pump No. 1 serving main heating coils; to have a capacity of 87-1/2 G.P.M. of 200 degree F. water against a head of 22-1/2 feet; equipped with a 1 H.P. 208 volt, three phase 60 cycle 1750 R.P.M. ball bearing motor.
   b. Pump No. 2, serving auxiliary heating units; to have a capacity of 29 G.P.M. of 200 degree F. water against a head of 36-1/2 feet; equipped with a 3/4 H.P., 208 volt, three phase, 60 cycle 1750 R.P.M. ball bearing motor.

33. Hot Water Expansion Tank: To have a minimum capacity of 60 gallons; capable of withstanding pressures up to 125 P.S.I.; as approved by A.S.M.E.

34. Hot Water Unit Heater:
   a. Unit heater of size, style, type, manufacture and capacity as shown and located on plans; equipped with individual thermostat, reverse acting aquastat on return line, and an on-off switch.
   b. Unit heater capacity; as tested and rated in accordance with standard test conditions of Industrial Unit Heater Association; as manufactured by Trane Company, Modine Manufacturing Company, C.A. Dunham Company or equal.

35. Transite Flue:
   a. Transite flue for gas fired boiler required as shown on the mechanical plans; to be furnished and installed under this contract. Flue complete with cap and breeching connection.
   b. Provide 16 gauge galvanized iron breeching between each outlet of boiler and Transite flue; of size indicated on the plans.

36. Heating Coils:
   a. As manufactured by Trane Company, Kennard Company, Marlo Company, or equal; fabricated from copper tubes with aluminum fins, mechanically bonded to the tube face.
   b. Hot water heating coils; having not less than specified capacity when supplied with water at an entering temperature of 190 degrees F. and leaving temperature of 170 degrees F.

Heating Coils Required

	FOR MAIN FAN SYSTEM	BOOSTER COILS #1	BOOSTER COILS #2
Type	Hot Water	Hot Water	Hot Water
Consisting of	Four (4)	One (1)	One (1)
Size	84 x 18	18 x 15	18 x 15
Minimum capacity (B.T.U./Hr.)	874,400	40,600	41,700
At altitude of 800 feet			
From initial temp of (Degrees F.)	60	85	85
To Final Temp. of (Degrees F.)	87	127	128
With face velocity not to exceed (F.P.M.)	700	500	500

37. Insulation:

a. Refrigeration Suction Piping:

1. Piping: cover with ice water thickness Fiberglas White Dual Temperature pipe covering; butt adjoining sections firmly together; seal longitudinal seam of jacket with white vapor barrier lap cement; seal circumferential joints with factory finished vapor barrier strip and lap cement; apply bands over each edge of joint sealing strip and at midsection of each section of insulation. Carry pipe covering continuously, full size, through hangers and rest on 18 gauge galvanized sheet metal saddles.
2. Fittings, Flanges and Valves: cover with fabricated insulation of ice water thickness securely fastened in place; brush coat with white vapor barrier cement followed by application of eight ounce (8 oz.) canvas and second coat of cement.

b. Hot Water Piping: Cover all hot water supply and return piping with one (1) inch asbestos air cell pipe covering or 3/4" Fiberglas pipe insulation with ends butted, cemented and banded. Cover fittings with plastic asbestos cement trowelled smooth and canvas.

c. Duct Work: cover all exposed duct work and plenum chambers on supply side of cooling coil sections and cooling coil housings installed in the air conditioning equipment rooms, with 1 inch Fiberglas Vapor-seal Duct Insulation of six (6) pound density, secured to ducts as follows: (Stic-Klip Method)

1. Type "A" Stic-Klip fasteners; place one every square foot of surface and hold in place with Miracle adhesive. Allow to dry 48 hours.
2. Fiberglas board; cut to shape and stripe at 1 foot intervals with adhesive stripes 1/8 inch thick and 4 inches wide applied with a serrated trowel.
3. Impale insulation on Stic-Klips, then bend clip prong flush with insulation. Brush coat clip prongs with mastic.
4. Cover all seams with waterproof tape and two (2) brush coats of a vapor barrier mastic; embed layer of glas fabric between coats.
5. Finish insulation with pasted canvas jacket.

For following concealed duct work, insulate as above, except omit step (5): Supply risers installed adjacent to exterior walls.

38. Electrical Service:
   a. Service and electrical distribution centers containing separate disconnect switches for each piece of heating, ventilating, and air conditioning equipment will be furnished and installed in locations indicated on plans, by others.
   b. Commence electrical installation from disconnects provided within distribution centers.

39. Electrical Wiring, Connections, etc.:
   a. Provide all necessary electrical equipment; do all electrical wiring and connections of all mechanical equipment including complete wiring of compressors, pumps, boiler, blowers, fans, unit heaters, controls, and all incidental equipment and motors, in accordance with J. C. PENNEY COMPANY, INC. Standard Details # M-169, M-181 and M-239A.
   b. Equip all motors with: thermal overload protection, low voltage protection, magnetic motor starters, remote control push button stations, pilot lights, and disconnect switch located within sight of respective motor.
   c. Mount push button stations and pilot lights on a central panel in location shown on plans. Mark push button stations and pilot lights with bakelite name plates.
   d. Run all electrical wiring in electrical metallic tubing in diameters up to two (2) inches and in rigid conduit in diameters over two (2) inches.
   e. Wiring and apparatus to meet following standards, as minimum requirements except where made more stringent by this specification or local ordinances:
      1. National Board of Fire Underwriters.
      2. National Electrical Manufacturers Association.
      3. Local Public Utility furnishing energy to the premises.
   f. All wiring, equipment, and materials as manufactured by Westinghouse Electric Company, or equal.

40. Steam Press Equipment:
   a. All steam and gravity condensate return piping shall pitch downward in the direction of flow and shall be of standard weight steel with 150 lbs. extra heavy cast iron screwed fittings. Pipe relief valve discharge on 75 p.s.i. boiler through the roof.
   b. Valves and Fittings: All globe valves, check valves, unions, and strainers shall be of the 150 lbs. class extra heavy screwed.
   c. Insulation: All steam and condensate return piping shall be covered with not less than one inch thick 85 per cent magnesia type covering with ends butted, cemented, canvassed and banded. Fittings shall be covered with plastic asbestos cement, trowelled smooth and canvassed.

   No insulation required for piping to steam room shown on detail # M-271.

d. Water Piping:

1. Furnish and install a city water make-up to each boiler unit. Each water make-up line is to be connected as per manufacturer's recommendation and be of the size indicated on the standard detail drawings.
2. Piping shall be standard weight galvanized pipe with galvanized malleable fittings.

e. Electric Wiring: Furnish and install all final electrical wiring necessary to connect each boiler unit to its respective disconnect switch provided by others. Wiring shall conform to the standards set forth by the National Board of Fire Underwriters and the Local Electric Code.

f. Equipment Furnished by the J. C. PENNEY COMPANY: The equipment listed below is to be furnished by the J. C. PENNEY COMPANY:

1. All steam pressing equipment such as steam press, puffers, etc.
2. Electric boilers of type and sizes shown on the standard detail drawings.
3. Required number bucket traps.
4. Required number of float traps.
5. Required number of high pressure vacuum breakers.

Furnish and install all other equipment as either called for in these specifications or as required to complete the steam generating systems in accordance with applicable J. C. PENNEY COMPANY, INC. standard details.

g. Boiler Operating Pressures: Set boiler controls to
g. operate boilers as follows: 30 K.W. Boiler Unit, 75 P.S.I.G.; 15 K.W. Boiler Unit 10-13 P.S.I.G.

h. Standard Detail Drawings: The attached standard detail drawings as listed below are to be made part of these specifications.

Standard Details Nos. M-201, M-203B, M-223, M-238 and M-271.

DIVISION 23

ELECTRICAL

23-A SCOPE

Materials: Service Entrance Equipment, Lighting and Distribution Panelboards, Raceways, Boxes and Fittings, Conductors, Cable, Devices, Cover Plates, Lighting Fixtures, Emergency Lighting Units.

23-A Installation: Service Entrance, Power and Lighting System, Telephone Outlet and Raceway System.

23-B INCIDENTALS

1. Codes, Permits and Inspections: The installation shall comply with all laws applicable to electrical installations which are enforced by local authorities; with the regulations of the N.E.C., where such regulations do not conflict with the local laws; with the standards of NEMA and the regulations of the utility company. The Contractor shall obtain all permits required by the local authorities and after completion of the work shall furnish to the utility company, for the Owner, a certificate of final inspection and approval from the inspection bureau having jurisdiction.

2. Standards for Material and Workmanship: All materials shall be new and shall be listed as conforming to the standards of the Underwriter's Laboratories, Inc., where such a standard has been established for the particular type of material in question. All work shall be executed in a workmanlike manner and shall present a neat appearance when completed. Catalog numbers of devices, fixtures, equipment, etc., are used for ease in describing the standard of quality desired. Devices, fixtures, equipment, etc., by other manufacturers performing the same functions and considered equal in quality by the Architect will be acceptable. Within 15 days after the date of receiving bids, the Contractor may submit a list of substitutions, indicating the amount to be added or deducted from the base bid price in the event that the substitutions are accepted, and provided the Contractor submits with the substitutions, the manufacturer's names, catalog numbers, drawings, certified U.L. approval, and in the case of lighting fixtures, certified E.T.L. tests, of the devices, fixtures, equipment, etc., to be substituted. If within the specified time, the foregoing information is not submitted, it will be considered that the work shall be installed as specified and no substitutions will be allowed thereafter.

3. Drawings: The wiring layouts are schematic and are not intended to show the exact location of raceways, outlets, etc. The Contractor shall refer to the Architectural plans and details for dimensions, and shall fit his work to conform to the details of the building construction. Electrical work is shown on Drawings E-1, E-2 and E-3.

4. Tests: After completion of the work, full scale working tests with all lights, equipment, machinery and appliances in operation shall be made and the electrical systems proven satisfactory for operation and free from defects. Any defects shall be remedied immediately by the Contractor

23-C MATERIALS AND INSTALLATION

1. Service Equipment: Service for lighting and power shall be 120/208 volts, 3 phase, 4-wire, 60 cycle wye.

   The main circuit breaker shall be a large air circuit breaker in a NEMA Class 1 enclosure, similar and equal to WEMCO Type DB-50.

The Contractor shall furnish and install service entrance raceway and conductors from the Utility Company vault, underground in concrete encased duct bank, in the furred space above Ground floor ceiling and up to the service equipment in the Penthouse, all as indicated on the drawings. Extend conductors 10'-0" into the vault and seal the ends of the cable, for connection by others.

2. Lighting and Distribution Panels: Each panel shall be mounted in a code gauge sheet steel cabinet with trim for flush or surface mounting as required. Cabinets shall have the necessary wiring gutters, barriers, etc., to meet the requirements of the Underwriter's Laboratories, Inc. The Contractor shall provide in each cabinet a neatly typed directory, properly identifying each branch circuit.

   Hinged cabinet doors shall be provided with cupboard latch and lock, all keyed alike. The Contractor shall provide a key for each panel installed.

   Lighting panelboards shall be WEMCO Type NLAB, or equal. With each panel the Contractor shall furnish 10 breaker lock dogs, No. 1720813.

   Show window lighting panelboards shall be WEMCO Drawing No. NA-1A015-6, modified to the requirements. See Standard Detail No. 31-4.

   Distribution panels shall be WEMCO Type CDP, or equal.

   All panelboards shall have the circuit breaker arrangement indicated on the drawings, in flush type cabinets for lighting and show window panelboards and in surface type cabinets for distribution panelboards.

3. Feeders: The Contractor shall furnish and install feeders of the types and sizes, as shown on the drawings, from the main distribution panel to each panel or control center.

   Disconnect and feeder switches shall be of type and size shown on drawings of Type "ND" construction.

4. Equipment Connections: Equipment, not specified in this section of the specifications, such as combination Kithen Unit, electric drinking fountains, etc., will be furnished and installed by others. The Contractor shall provide electrical service to the equipment as mentioned herein and as shown on the drawings.

5. Grounding: The Contractor shall provide an electric system neutral and conduit system ground at the main service entrance, consisting of a rigid conduit extended to the water service entrance pipe and connected thereto with approved type ground fitting.

   The raceway systems, boxes, outlets, cabinets, etc., shall be bonded together to form a continuous metallic circuit in accordance with the National Electric Code.

6. Conduit Systems: Conduit or electric metallic tubing systems shall be installed in accordance with the applicable provisions of the National Electrical Code. Conduit and tubing shall have galvanized or sheradized coating and shall conform to the standards of the Underwriter's Laboratories, Inc. Electric metallic tubing systems shall utilize watertight compression type threadless fittings throughout. Conduits and tubing shall be concealed within walls, floors, ceilings and furred spaces where possible. Exposed runs of conduit or tubing shall have supports spaced not more than eight feet apart and shall be installed with runs parallel or perpendicular to walls or ceilings with right angle turns consisting of cast-metal fittings or symmetrical bends. Expansion fittings of the flexible type to permit movement parallel

and at right angles to raceway, or other approved devices, shall be used to provide for expansion and contraction where conduit or tubing cross expansion joints. Conduit and tubing shall be supported on approved types of galvanized wall brackets, ceiling trapeze, strap hangers or pipe straps, secured by means of toggle bolts on hollow masonry units or expansion bolts in concrete or brick; machine screws on metal surfaces, and wood screws on wood construction. Conduit risers shall be supported at each floor level by means of approved V-clamp hangers. Conduit and tubing shall be installed in such manner as to insure against trouble from the collection of trapped condensation, and all runs of conduit shall be arranged so as to avoid traps wherever possible. Where raceways are run in earth, and below moisture seal of ground floor slab, the raceway shall be coated with asphaltum and completely covered with a minimum of 3" of concrete. The Contractor shall exercise the necessary precautions to prevent the collection of dirt, plaster, or trash in conduit, tubing, fittings and boxes, during the course of installation.

Rigid threaded conduit shall be used for all runs in concrete slabs in contact with earth, all feeder circuits and all other runs larger than 1-1/2". Electric metallic tubing 1-1/4" and smaller may be used in floor fill, masonry walls, and furred spaces for all systems other than feeder circuits. Branch circuit raceways shall be run in void spaces where possible, rather than in concrete slabs, or in floor fill, except as otherwise indicated on the drawings.

7. Outlets: Outlets shall be installed in the locations shown on the drawings. The Contractor shall study the general building plan in relation to the spaces surrounding each outlet in order that his work may fit the other work required by these specifications. When necessary, the Contractor shall relocate outlets so that when fixtures or other fittings are installed, they will be symmetrically located according to room layout and will not interfere with other work or equipment. Zinc-coated or cadmium-plated sheet steel boxes conforming to the requirements of the National Electrical Code and of a class and size to satisfy the conditions for each outlet, shall be used. Boxes shall be installed in a rigid and satisfactory manner, either by wood screws on wood, expansion shields on masonry, or machine screws on steel work. Fixture outlet boxes in ceiling shall not be less than 4" octagonal by 1-1/2" deep; boxes for fixtures on furred ceilings shall be supported independent of ceiling suspension. Fixture outlet boxes in concrete ceilings shall be of the 4" octagonal concrete type, set flush with the finished surface. Switch, receptacle and telephone outlet boxes shall be not less than 4" square, fitted with appropriate plaster covers for plastered walls and shall be of the sectional type, set flush, in unfinished masonry walls. Outlets for exposed work shall be of cast steel or alloy. Pull boxes shall be constructed of code-gauge galvanized sheet metal, of not less than the minimum size required by the National Electrical Code. Boxes shall be furnished with screw-fastened covers. Pull boxes, in addition to those indicated on the drawings, shall be installed wherever runs or too many bends tend to make the installation of conductors difficult.

   Where junction boxes are indicated to serve equipment, the Contractor shall provide flush steel cover plate and wiring in flexible conduit to equipment, only where indicated, will be extended.

8. Conductors: A complete system of conductors shall be installed in all raceway systems except telephone raceways. Branch circuit conductors shall be not less than No. 12 gauge, except where noted on drawings.

   Conductor sizes other than No. 12 are called for in the specifications or are indicated on the drawings. All conductors shall be Type "RH" except as noted, or otherwise mentioned herein.

All conductors run underground or in slab in contact with the ground, shall be Type "RHW", with neoprene jacket, for feeders and for branch circuit wiring. Service entrance conductors shall be of Type and size indicated. Riser conductors shall be supported in accordance with Code requirements.

9. Devices

a. Convenience outlets shall be of duplex type, Bryant #5242, with Bryant 91101 plate.

b. Wall switches shall be T-rated specification grade tumbler switches, Bryant #4801.

c. Floor outlets shall be Russell & Stoll #2519 (with 3 wire Bryant #5261 grounded receptacle) and each is to have a #2561 protective ring and 2-1/8" combination cap.

d. Switch with pilot light shall consist of a ruby bulls-eye, single convenience outlet and switch (Bryant #5349). Switch to control outlet and light in "on" position.

e. Outlet for combination hotplate and refrigerator unit shall be Bryant #9304, 3-wire, polarized receptacle outlet, 30 amp.

f. Clock hanger outlet shall be Bryant #2992-I with brown textolite plate. Clock shall be Seth Thomas "Manager 12-B". See Standard Detail E-18.

g. Pushbutton and bell shall be Edwards #600 and 55-6 with #88-50 transformer.

10. Device Cover Plates: A device plate shall be provided for each outlet to suit the device installed. Plates on fittings shall be formed sheet metal having rounded or beveled edges and with a cadmium finish. Plates on finished walls shall be brown composition. Plates shall be installed in continuous contact with finished wall surfaces, without the use of mats or similar devices.

Plates shall be installed vertically and with an alignment tolerance of of 1/16". Group devices shall be covered with a single plate having suitable openings for the devices. Receptacles and their plates over casework or counters shall be installed horizontally with same alignment tolerance.

11. Lighting Fixtures: Each lighting outlet on the drawings if lettered, or the outlets in a particular area are grouped and a letter assigned to them as indicated on the drawings. The letter indicates the type of fixture and the wattage of lamps or tubes to be used in the fixture at each outlet. The Contractor shall furnish, install and wire, a lighting fixture at each outlet in accordance with the following Schedule shown on Standard Details E-12, E-13, E-15, E-16, E-18 and E-19.

In addition to the foregoing lighting fixtures, the Contractor shall furnish and install exit signs and emergency lighting units. The emergency lighting units shall be as shown on Standard Detail E-14. Exit signs shall be similar and equal to Solux Type EJF, with 6" letters.

12. Lamps: The Contractor shall furnish and install all lamps. Fluorescent Lamps shall be similar and equal to G.E. "Deluxe Coole". Incandescent lamps, except special types, shall be general service lamps, inside frosted, and with the type base required for the wattage of the lamp.

13. Fire Alarm System: The Contractor shall furnish and install an electrically operated, continuous, closed circuit, supervised fire alarm system, consisting of a supervisory control board, fire alarm boxes, and fire alarm horns.

For ease in describing the functions, quality and type of system desired, the catalog numbers of the Edwards Company are used. Equipment by other manufacturers performing the same functions and considered equal in quality by the Architect will be acceptable.

The supervisory control board shall be Edwards Type CCVA with provisions for supervising and operating one horn circuit and one fire alarm box circuit. The control board shall have provisions for indicating failure of the operating current; for indicating an open or grounded box or horn circuit or detecting derangement of the supervised wiring on the control board.

These failures shall be indicated by the sounding of the trouble bell.

The supervisory control board shall be located in the Air Conditioning Mechanical Equipment Room and shall be supplied from the emergency system with the fire alarm system and trouble bell each operating from neutral and one phase wire, of a 120 volt, 3-wire circuit, and shall be similar and equal to Edwards Catalog No. 1221.

The fire alarm boxes shall be Edwards Type 270, break glass, pull lever type, semi-flush mounted 5'-0" above the floor at locations shown on the drawings. Operation of the pull lever shall sound the horns.

Fire alarm horns shall be flush mounted at 10'-0", at locations indicated on the drawings, and shall be for 120 volt service, similar and equal to Edwards Catalog No. 360.

Wiring for the fire alarm system shall be the same as for lighting wiring, except that #14 AWG conductors may be used and shall be as shown on the drawings.

The Contractor shall install all equipment in accordance with the manufacturer's instructions. The manufacturer shall guarantee all apparatus against all defects of workmanship and material for a period of one year from date of acceptance. The Contractor installing this system, shall leave it in first class operating condition and shall guarantee his work for a period of one year from date of acceptance.

14. Telephone and Raceway System: The Contractor shall provide and install an outlet and raceway system for telephones, including risers, terminal boxes outlet boxes and cover plates.

The main telephone service entrance shall be from the telephone manhole and shall terminate in the 18" x 24" x 4" flush terminal box, with wooden backboard and hinged locking cover.

Branch circuit raceways shall stub into the terminal box.

Telephone outlet boxes shall be 4" square, or sectional, pressed steel of sufficient depth to accommodate a jack or bushed holed cover plate for cable outlet and shall be acceptable to the Telephone Company.

An iron fish wire shall be pulled in to all telephone raceways, capped and left in place.

15. Emergency Fire Alarm Supply: The Contractor shall furnish and install an Emergency Fire Alarm Supply, consisting of an emergency transfer

switch to supply power for the fire alarm system, as indicated on the drawings. These loads shall normally be fed through a branch in the main distribution panelboard, with an automatic transfer switch to transfer these loads to the line side of the main breaker through a feeder switch.

The main distribution panel shall be equipped with 30 ampere, 3-pole solid neutral, "Normal" branch, supplying the normal contacts of the automatic transfer switch.

The emergency contacts of this switch shall be supplied through the feeder switch. The center contacts of this transfer switch shall supply the Fire Alarm panel.

The transfer switch shall be rated 30 ampere, 250 volts, 3-pole, solid neutral, in a surface mounted enclosure, similar and equal to Automatic Switch Company Catalog No. 905218-C.

16. Name Plates: The Contractor shall identify all contactors, controllers, disconnect switches, panels, etc., with black Bakelite name plates, having 1/2" high engraved letters finished in white. Bakelite plates shall be attached to the various pieces of equipment with self-tapping metal screws. For lighting panels in finished areas, the Bakelite plates shall be attached to the inside of a panel door with a high strength adhesive.

DIVISION 24

CAISSON

24-A SCOPE

The Contractor shall furnish all labor, materials and equipment necessary to complete all caisson work as shown on the drawings and as herein specified.

24-B INCIDENTAL

1. The General Conditions are hereby made a part of this Division.

2. Caissons along the existing buildings shall not be drilled until the location and type of foundations under the existing buildings have been determined.

3. Adequate protection shall be provided so that existing walls will not be damaged.

24-C MATERIALS AND INSTALLATION

1. Concrete for all caissons shall be Class B, 2500 lbs. per sq. in. at 28-day test and shall be in accordance with Division 5, concrete.

2. All caissons shall be cylindrical in shape, with diameters as indicated on the drawings. The method of excavation for caissons may be mechanical, or the entire operation may be done by manual labor.

3. All caissons shall be centered under the columns they support unless indicated otherwise on the drawings. Caissons shall be as nearly vertical as possible, but in no case shall the departure from a true vertical alignment exceed two (2) percent.

4. All caissons shall bear on level rock having a compressive strength of approximately 60,000 lbs. per sq. foot. See foundation notes on Sheet S-1 for method of determining strength of rock.

5. The elevations for bottom of caissons shown on the foundation plan are primarily for estimating purposes. The bottom elevations shall be raised or lowered, if necessary, to obtain satisfactory bearing. However, in no case, shall the depth of a caisson be less than four (4) feet. Bidders shall include in their proposals unit prices for overlength and underlength footage as established in the field.

6. The elevations of the top of the caissons shall be as shown on the foundation plan.

7. Before any concrete is poured into excavations for caissons, a careful inspection shall be made to determine whether there have been any cave-ins, whether the diameter of the shaft is correct and whether the bearing capacity of the rock is adequate. See foundation notes on Sheet S-1 for the method of determining the continuity and soundness of the rock.

DIVISION 25

STEEL SLABFORM

25-A SCOPE

The Contractor shall furnish all labor, material and equipment necessary to complete all steel slabform work as a base for concrete floor and roof slabs where shown on the drawings.

25-B INCIDENTAL

L. The General Conditions are hereby made a part of this Division.

2. Shop Drawings:

   a. Submit to the Architect shop drawings for steel slabform. All dimensions necessary to the checking of shop drawings shall be shown.

   b. The Contractor shall be responsible for conformation of all details to the typical and special details indicated on the drawings. Work must not proceed in the field before the Contractor has received applicable approved drawings.

3. Applicable Specifications and Codes:

   The following Specifications and Codes, of latest edition, form a part of this Specification:

   a. Code for Arc and Gas Welding in Building Construction, as formulated by the American Welding Society.

   b. A.S.T.M. Serial Designation A-361-55T Specification.

25-C MATERIALS AND INSTALLATION

1. Steel Slabform shall be 'Standard Corruform' or'Bethlehem Standard Slabform' having the following properties:

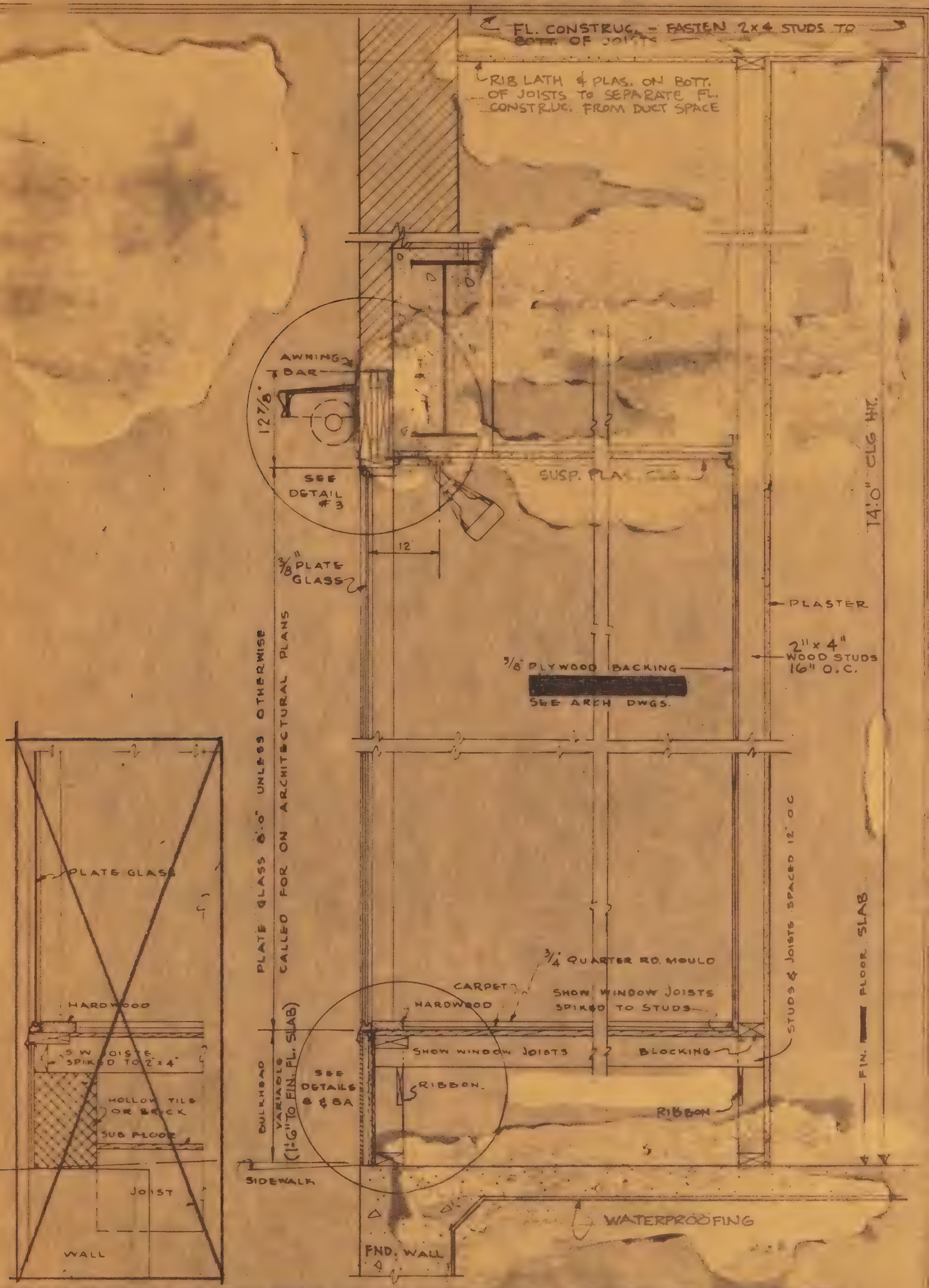
   Thickness - 0.015 inch
   Moment of Inertia - 0.01 inch to the fourth power per foot width
   Section Modulus - 0.033 inch to the third power per foot of width
   Corrugation depth - approximately 9/16 inch
   Yield Point - approximately 90,000 p.s.i.

2. Steel shall receive a hot-dip galvanized coating conforming to A.S.T.M. Sērial Designation A-361-55T Specification, 1.25 oz. per square foot coating clsss.

3. Steel slabform shall be placed with corrugations perpendicular to supports. End laps shall occur over a joist and be a minimum of 2 inches in length. Side laps shall be approximately 3/4 inch.

4. Steel slabform shall be attached to the joists by plus welding through curved washers. Welds shall be made through the sheets at side laps at each joist.

5. Before anchoring slabform for roof slabs, vent clips shall be attached to edge of top sheet in side laps. One clip shall be located at the mid-point between joists.


FL. CONSTRUC. - FASTEN 2x4 STUDS TO BOTT. OF JOISTS
RIB LATH & PLAS. ON BOTT. OF JOISTS TO SEPARATE FL. CONSTRUC. FROM DUCT SPACE
AWNING BAR
12 7/8"
SEE DETAIL #3
SUSP. PLAS. CLG.
12"
3/8" PLATE GLASS
14'-0" CLG. HT.
PLASTER
2" x 4" WOOD STUDS 16" O.C.
5/8" PLYWOOD BACKING
SEE ARCH DWGS.
PLATE GLASS 8'-0" UNLESS OTHERWISE CALLED FOR ON ARCHITECTURAL PLANS
3/4 QUARTER RD. MOULD
CARPET
HARDWOOD
SHOW WINDOW JOISTS SPIKED TO STUDS
STUDS & JOISTS SPACED 12" O.C.
FIN. FLOOR SLAB
SHOW WINDOW JOISTS
BLOCKING
SEE DETAILS 8 & 8A
RIBBON
RIBBON
BULKHEAD VARIABLE (1'-6" TO FIN. FL. SLAB)
SIDEWALK
WATERPROOFING
FND. WALL
PLATE GLASS
HARDWOOD
S.W. JOISTS SPIKED TO 2"x4"
HOLLOW TILE OR BRICK
SUB FLOOR
JOIST
WALL

NOTE - CONSTRUCTION UNDER SHOW WINDOW AND VESTIBULE TO BE IN ACCORDANCE WITH ARCH. DRAWINGS

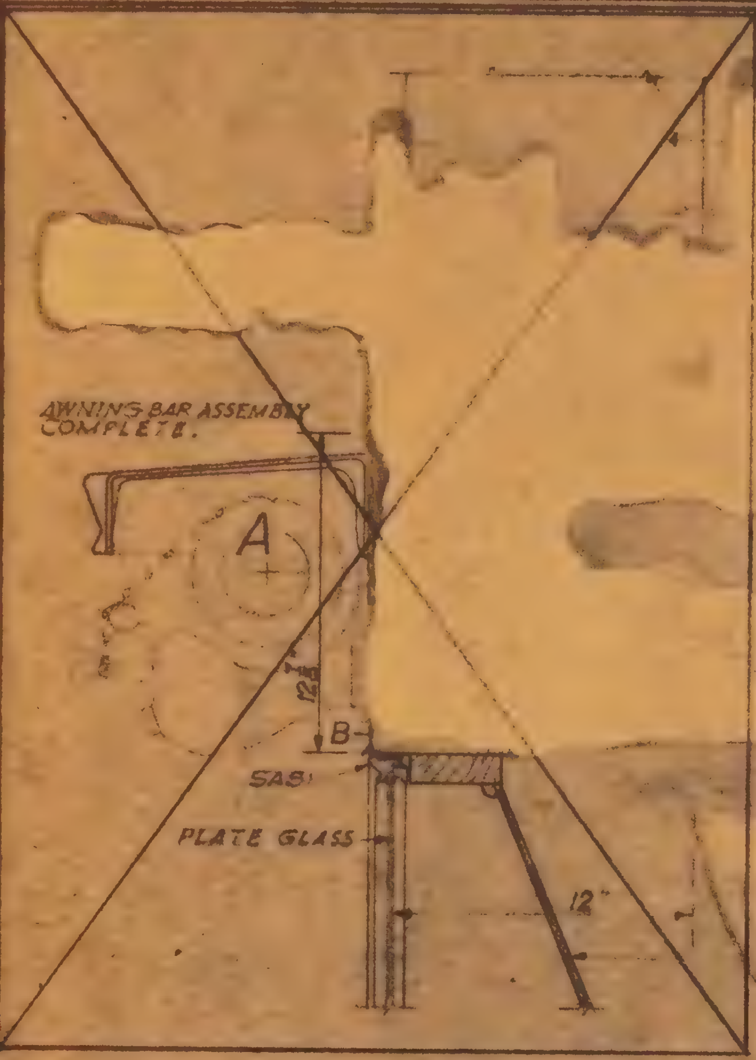
SCALE - 3/4" = 1'-0"
UNLESS OTHERWISE NOTED.

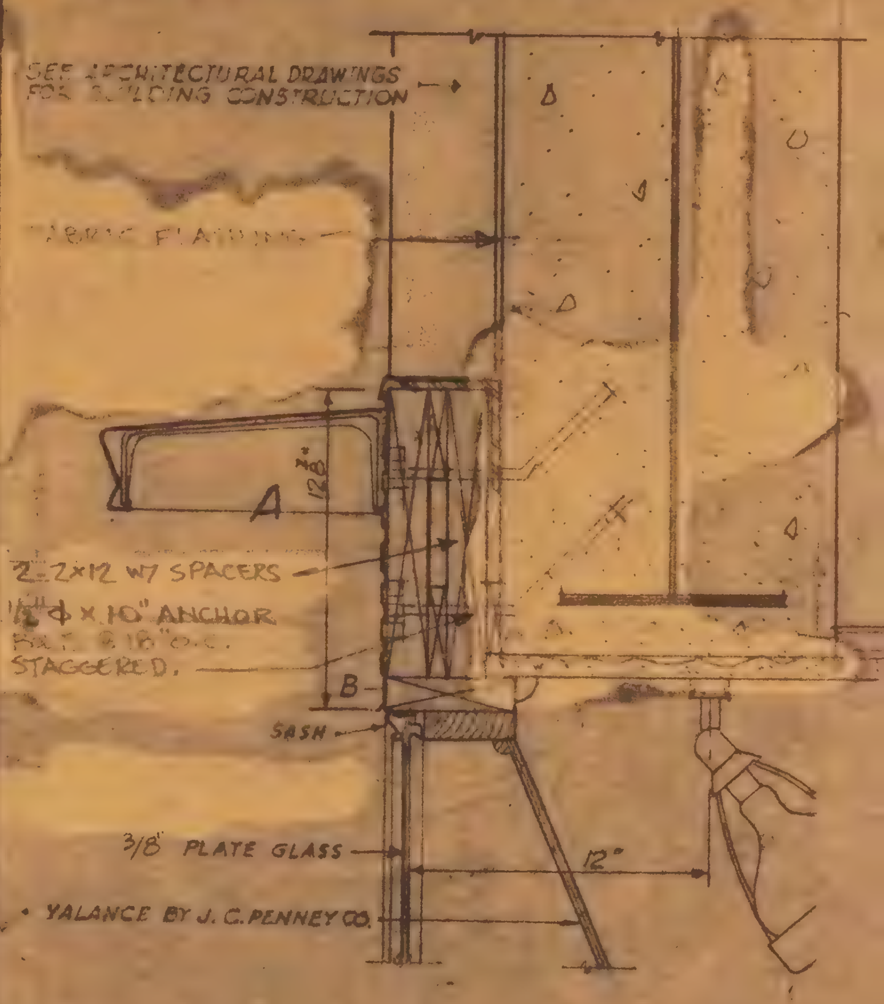
SECTION THROUGH SHOW WINDOW

ACED & REV.
Y L R 12-19-52
✓ 1-1-53
V. 8-4-54 F.K.K
V. 1-7-55 F.K.K
V. 7-17-56 F.K.K
V. 5-15-58 P.S.N.

J.C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34TH ST. NEW YORK CITY

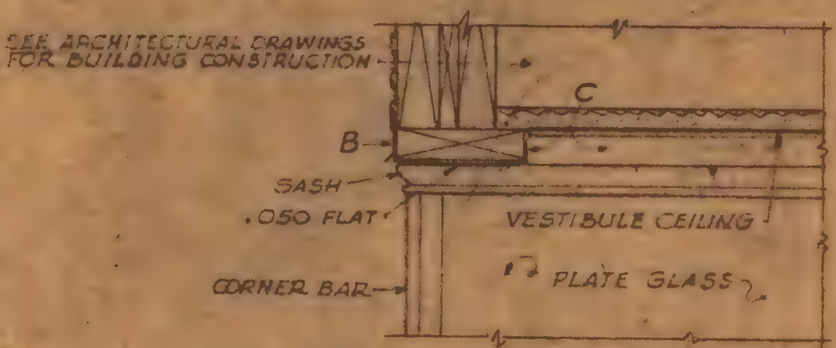
DETAIL NO
2 LO


AWNING BAR ASSEMBLY COMPLETE.
A
B
SASH
PLATE GLASS
12"

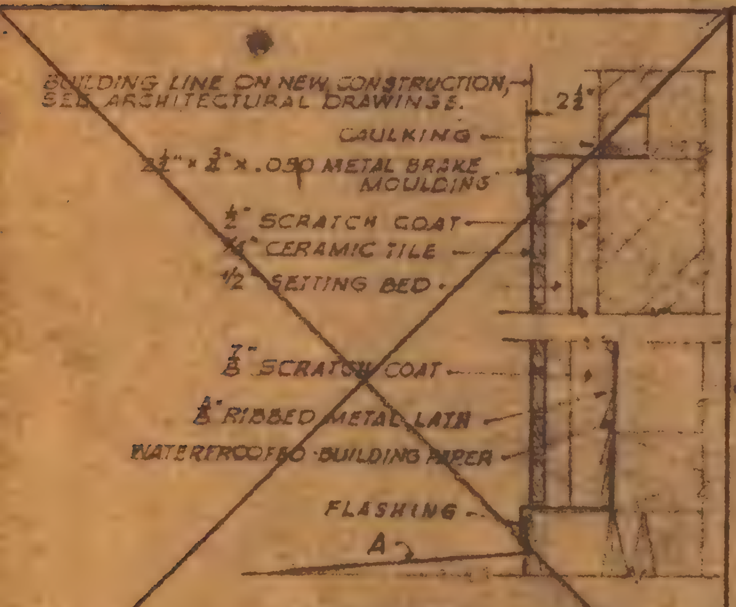

SEE ARCHITECTURAL DRAWINGS FOR BUILDING CONSTRUCTION
FABRIC FLASHING
A
2-2×12 W/ SPACERS
½"Φ × 10" ANCHOR BOLT @ 16" O.C. STAGGERED.
B
SASH
3/8" PLATE GLASS
12"
VALANCE BY J. C. PENNEY CO.

·SCHEDULE·		
	PITTCO	KAWNEER
A	84	23-503
B	2132 ALT.	11-102
C	2030	11-301

AWNING BARS SHALL BE COMPLETE ASSEMBLIES INCLUDING BRACKETS, END CAPS, EXTENSION COVERS, ETC..

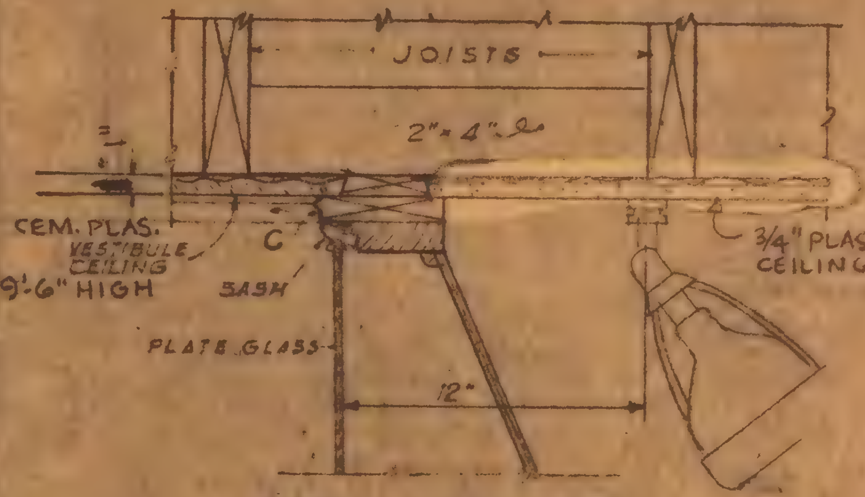

SEE ARCHITECTURAL DRAWINGS FOR BUILDING CONSTRUCTION
C
B
SASH
.050 FLAT
VESTIBULE CEILING
PLATE GLASS
CORNER BAR

SECTION THRU UNDERCOVER


BUILDING LINE ON NEW CONSTRUCTION, SEE ARCHITECTURAL DRAWINGS.
2¼"
CAULKING
2¼" × 2" × .050 METAL BRAKE MOULDING
½" SCRATCH COAT
¼" CERAMIC TILE
½" SETTING BED
7/8" SCRATCH COAT
⅜" RIBBED METAL LATH
WATERPROOFED BUILDING PAPER
FLASHING
A

FACING DETAIL

SCALE 3" = 1'-0"


JOISTS
2" × 4"
CEM. PLAS. VESTIBULE CEILING 9'-6" HIGH
C
SASH
3/4" PLAS. CEILING
PLATE GLASS
12"

SECTION THRU VESTIBULE HEAD JAMB

SCALE 1½" = 1'-0" UNLESS OTHERWISE NOTED.

·AWNING BAR DETAILS·

DRAWN BY:
[illegible] 4-10-58
C.A.R.

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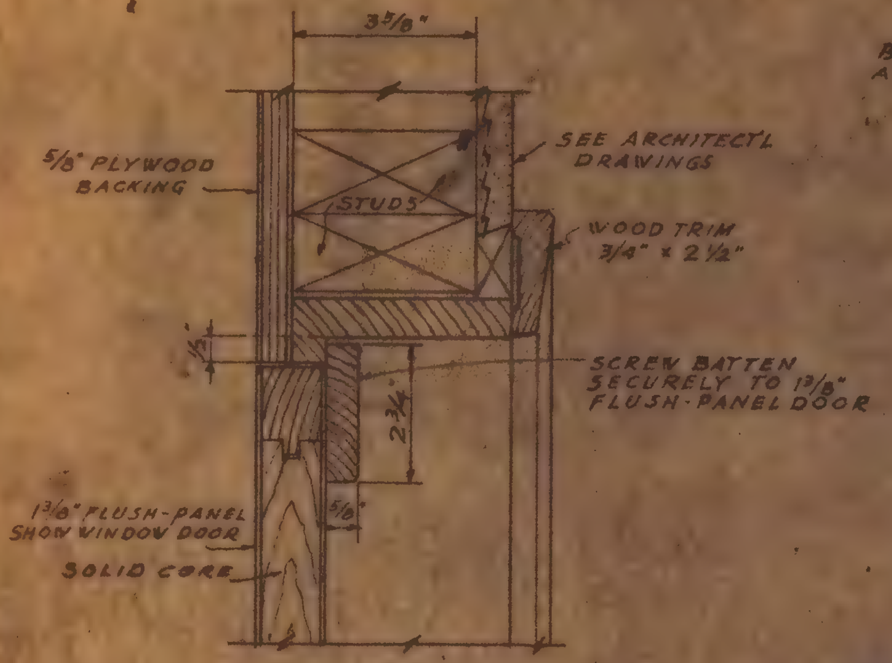
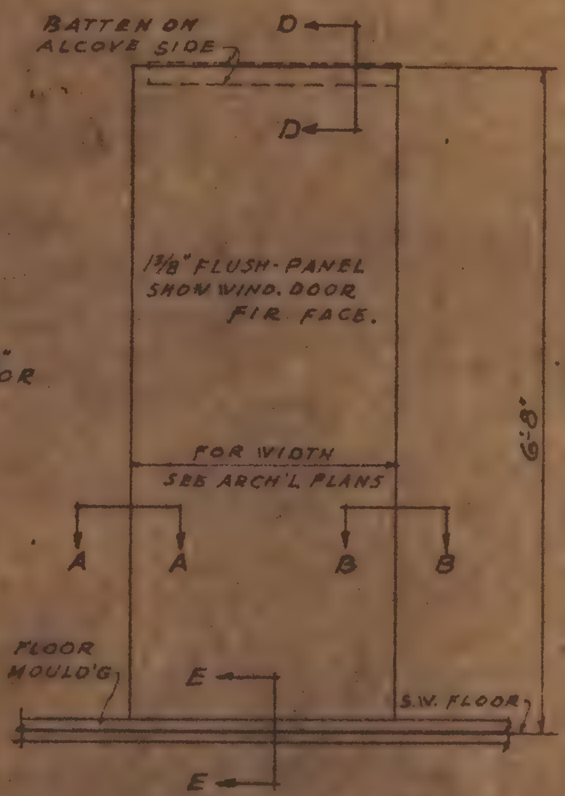
·CONSTRUCTION DIVISION·
330 W. 34TH ST.
NEW YORK CITY.

DETAIL No
3.14

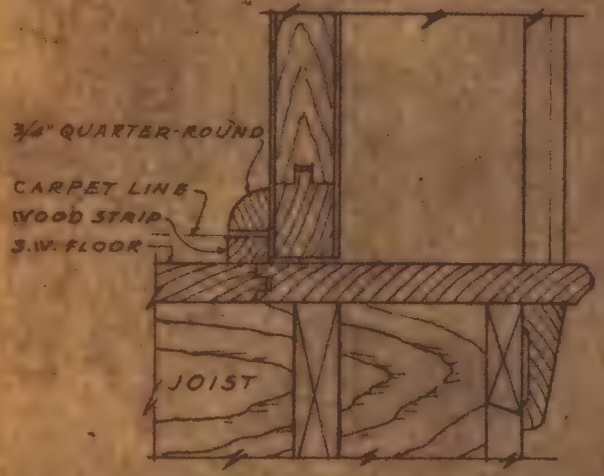

3⅞"
5/8" PLYWOOD BACKING
SEE ARCHITECT'L DRAWINGS
STUDS
WOOD TRIM 3/4" × 2½"
½"
SCREW BATTEN SECURELY TO 1⅜" FLUSH-PANEL DOOR
2¾"
5/8"
1⅜" FLUSH-PANEL SHOW WINDOW DOOR
SOLID CORE

·SECTION D-D·


BATTEN ON ALCOVE SIDE
D
D
1⅜" FLUSH-PANEL SHOW WIND. DOOR FIR FACE.
6'-8"
FOR WIDTH SEE ARCH'L PLANS
A
A
B
B
FLOOR MOULD'G
E
S.W. FLOOR
E

·ELEVATION·

SCALE ½" = 1'-0"


3/4" QUARTER-ROUND
CARPET LINE
WOOD STRIP
S.W. FLOOR
JOIST

·SECTION E-E·

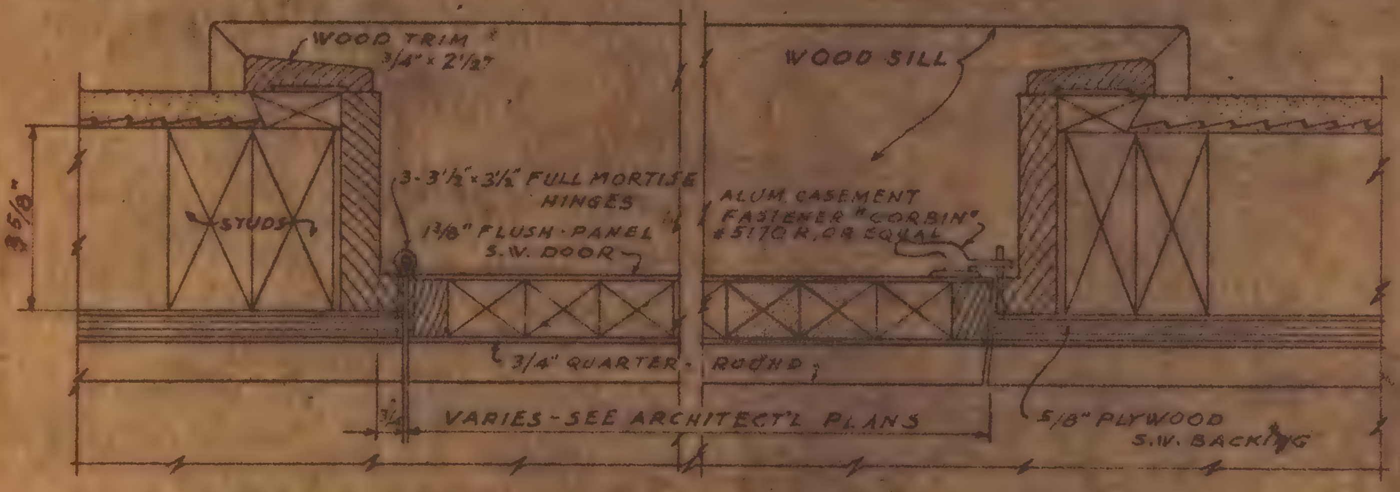
NOTES.

WALLS SHALL BE 5/8" PLYWOOD, "GOOD ONE SIDE", NAILED TO STUDS WITH 1¼" GALV. BRADS, 6" O.C.

DOORS SHALL BE 1⅜" FLUSH PANEL, FIR FACE.

SHOW WINDOW CEILING SHALL BE 3/8" PLYWOOD, "GOOD ONE SIDE".

SEE ARCHITECTURAL DRAWINGS.


WOOD TRIM 3/4" × 2½"
WOOD SILL
3⅝"
STUDS
3-3½" × 3½" FULL MORTISE HINGES
1⅜" FLUSH-PANEL S.W. DOOR
ALUM. CASEMENT FASTENER "CORBIN" #5170R, OR EQUAL
3/4" QUARTER-ROUND
3/4
VARIES-SEE ARCHITECT'L PLANS
5/8" PLYWOOD S.W. BACKING

·SECTION A-A·

·SECTION B-B·

SCALE [illegible] : 1'-0"
UNLESS OTHERWISE NOTED.

·SHOW WINDOW ACCESS DOORS·

REDRAWN & REV'D
BY F.K.K. 1-31-56
REV. 4-10-56·F.K.K.
REV. 5-7-56·F.K.K.

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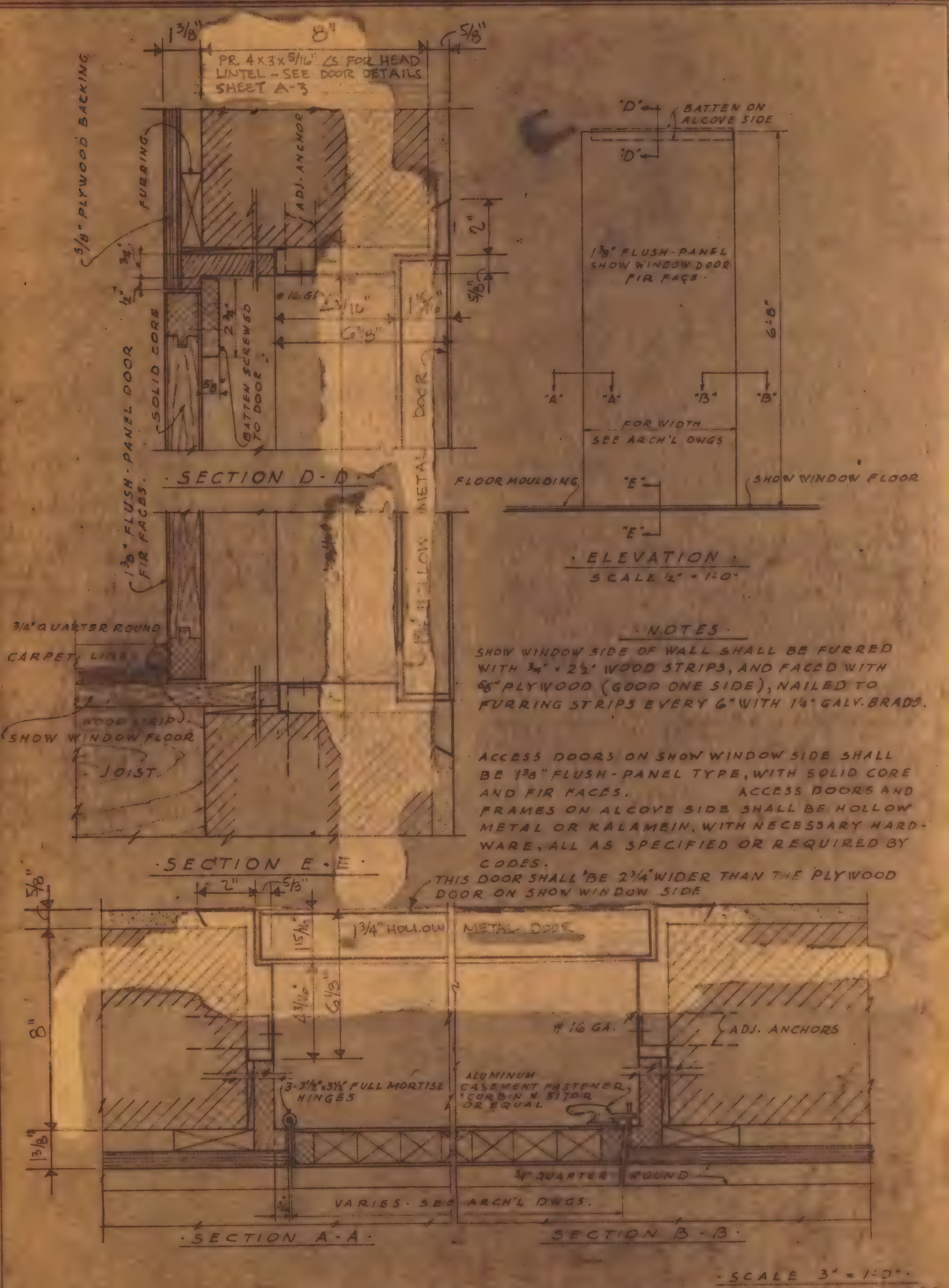
·NEW YORK CITY·

DETAIL NO
5 13


1 3/8"
8"
5/8"
PR. 4 x 3 x 5/16" ∠s FOR HEAD LINTEL – SEE DOOR DETAILS SHEET A-3
5/8" PLYWOOD BACKING
FURRING
ADJ. ANCHOR
3/4"
1/2"
2"
5/8"
#16 GA.
2 3/16"
1 15/16"
6 1/8"
2 1/4"
5/8"
SOLID CORE
BATTEN SCREWED TO DOOR
HOLLOW METAL DOOR
1 3/8" FLUSH - PANEL DOOR FIR FACES.
· SECTION D-D ·
3/4" QUARTER ROUND
CARPET LINE
WOOD STRIP
SHOW WINDOW FLOOR
JOIST
· SECTION E-E ·
"D"
BATTEN ON ALCOVE SIDE
1 3/8" FLUSH-PANEL SHOW WINDOW DOOR FIR FACE.
6'-8"
"A"
"B"
FOR WIDTH SEE ARCH'L DWGS
FLOOR MOULDING
SHOW WINDOW FLOOR
"E"
5/8"
2"
5/8"
1 15/16"
1 3/4" HOLLOW METAL DOOR
4 3/16"
6 1/8"
8"
1 3/8"
# 16 GA.
ADJ. ANCHORS
3-3 1/2" x 3 1/2" FULL MORTISE HINGES
ALUMINUM CASEMENT FASTENER "CORBIN # 5170" OR EQUAL
3/4" QUARTER ROUND
3/4"
VARIES · SEE ARCH'L DWGS.
· SECTION A-A ·
· SECTION B-B ·

· ELEVATION ·
SCALE 1/2" = 1'-0"

· NOTES ·

SHOW WINDOW SIDE OF WALL SHALL BE FURRED WITH 3/4" × 2 1/2" WOOD STRIPS, AND FACED WITH 5/8" PLYWOOD (GOOD ONE SIDE), NAILED TO FURRING STRIPS EVERY 6" WITH 1 1/4" GALV. BRADS.

ACCESS DOORS ON SHOW WINDOW SIDE SHALL BE 1 3/8" FLUSH-PANEL TYPE, WITH SOLID CORE AND FIR FACES. ACCESS DOORS AND FRAMES ON ALCOVE SIDE SHALL BE HOLLOW METAL OR KALAMEIN, WITH NECESSARY HARDWARE, ALL AS SPECIFIED OR REQUIRED BY CODES.

THIS DOOR SHALL BE 2 3/4" WIDER THAN THE PLYWOOD DOOR ON SHOW WINDOW SIDE

· SCALE 3" = 1'-0" ·
UNLESS OTHERWISE NOTED ·

SHOW WINDOW ACCESS DOORS (FROM FIREPROOF ALCOVE OR STAIRTOWER)

DRAWN BY:
F.K.K. 1-29-54
REV. 8-4-54 F.K.K.
REV. 12-12-55. F.K.K.
REV. 1-31-56. F.K.K.
REV. 4-10-56 F.K.K.
REV. 5-7-56. F.K.K.

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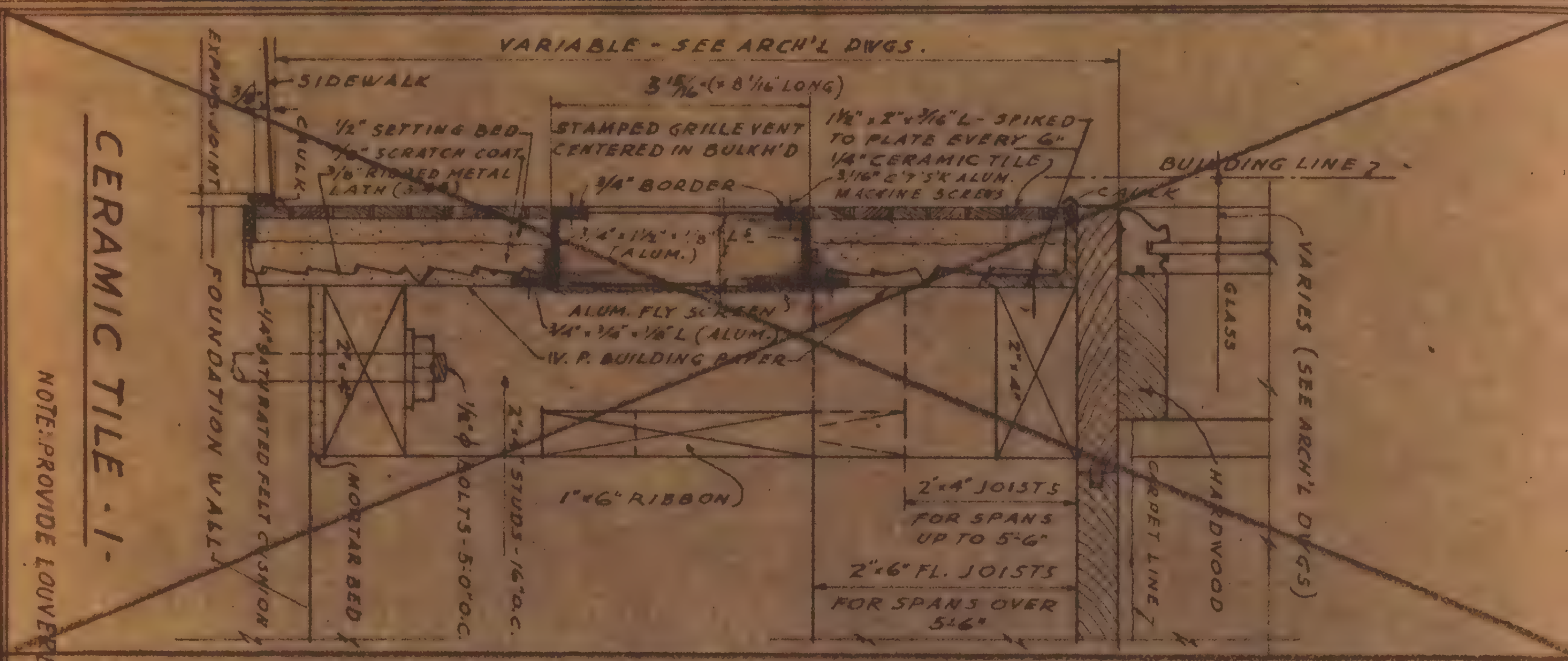
DETAIL No
5A5

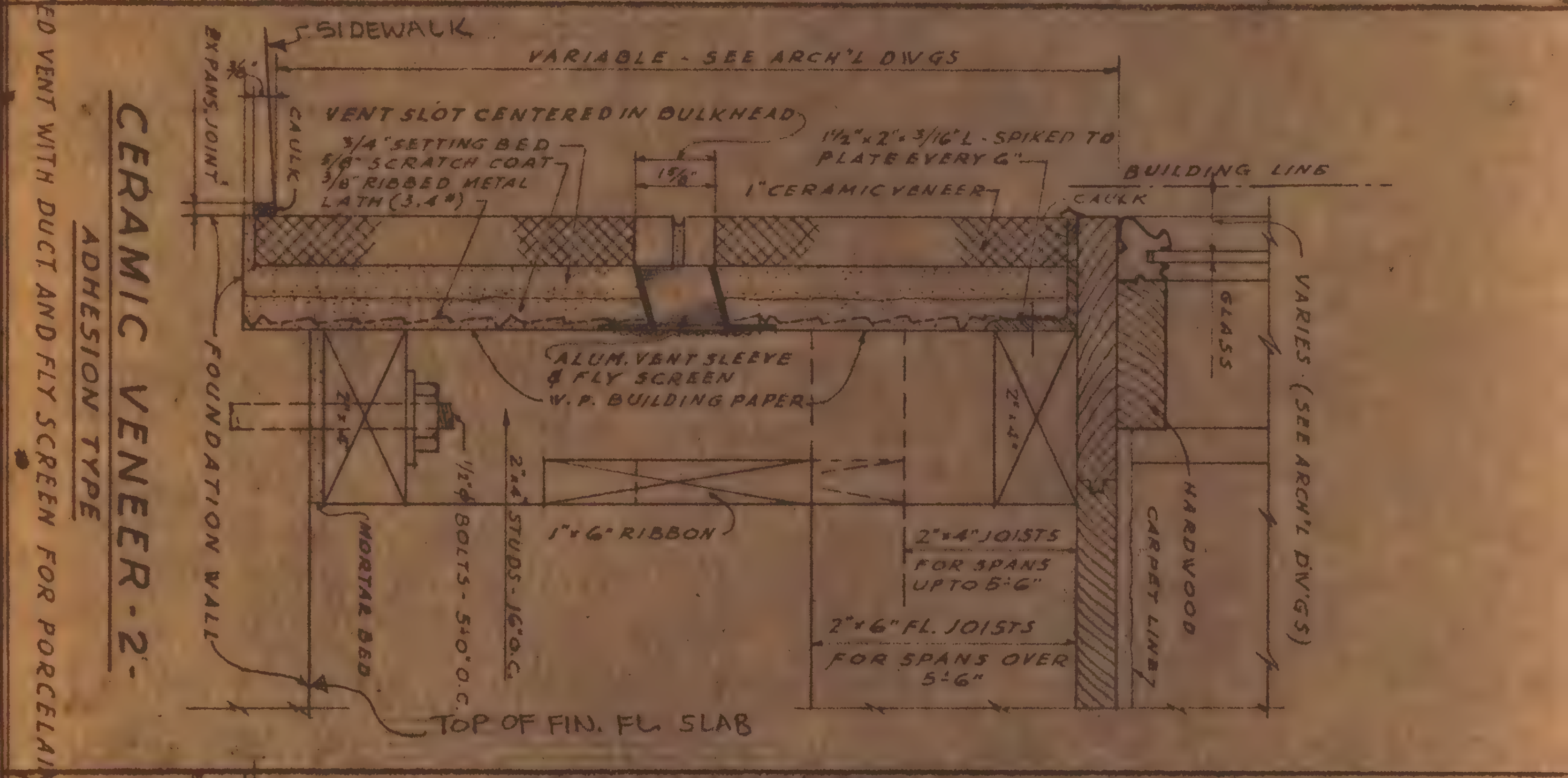
CERAMIC TILE -1-


VARIABLE - SEE ARCH'L DWGS.
SIDEWALK
3/8"
EXPANS. JOINT
CAULK
3 15/16" (× 8 1/16" LONG)
1/2" SETTING BED
7/8" SCRATCH COAT
3/8" RIBBED METAL LATH (3.4#)
STAMPED GRILLE VENT CENTERED IN BULKH'D
3/4" BORDER
1 1/2" × 2" × 3/16" L - SPIKED TO PLATE EVERY 6"
1/4" CERAMIC TILE
3/16" C'T'S'K ALUM. MACHINE SCREWS
BUILDING LINE
CAULK
3/4" × 1 1/2" × 1/8" L'S (ALUM.)
ALUM. FLY SCREEN
3/4" × 3/4" × 1/8" L (ALUM.)
W. P. BUILDING PAPER
GLASS
VARIES (SEE ARCH'L DWGS)
FOUNDATION WALL
1/4" SATURATED FELT CUSHION
2"×4"
MORTAR BED
1/2" ϕ BOLTS - 5'-0" O.C.
2"×4" STUDS - 16" O.C.
1"×6" RIBBON
2"×4"
2"×4" JOISTS FOR SPANS UP TO 5'-6"
2"×6" FL. JOISTS FOR SPANS OVER 5'-6"
CARPET LINE
HARDWOOD

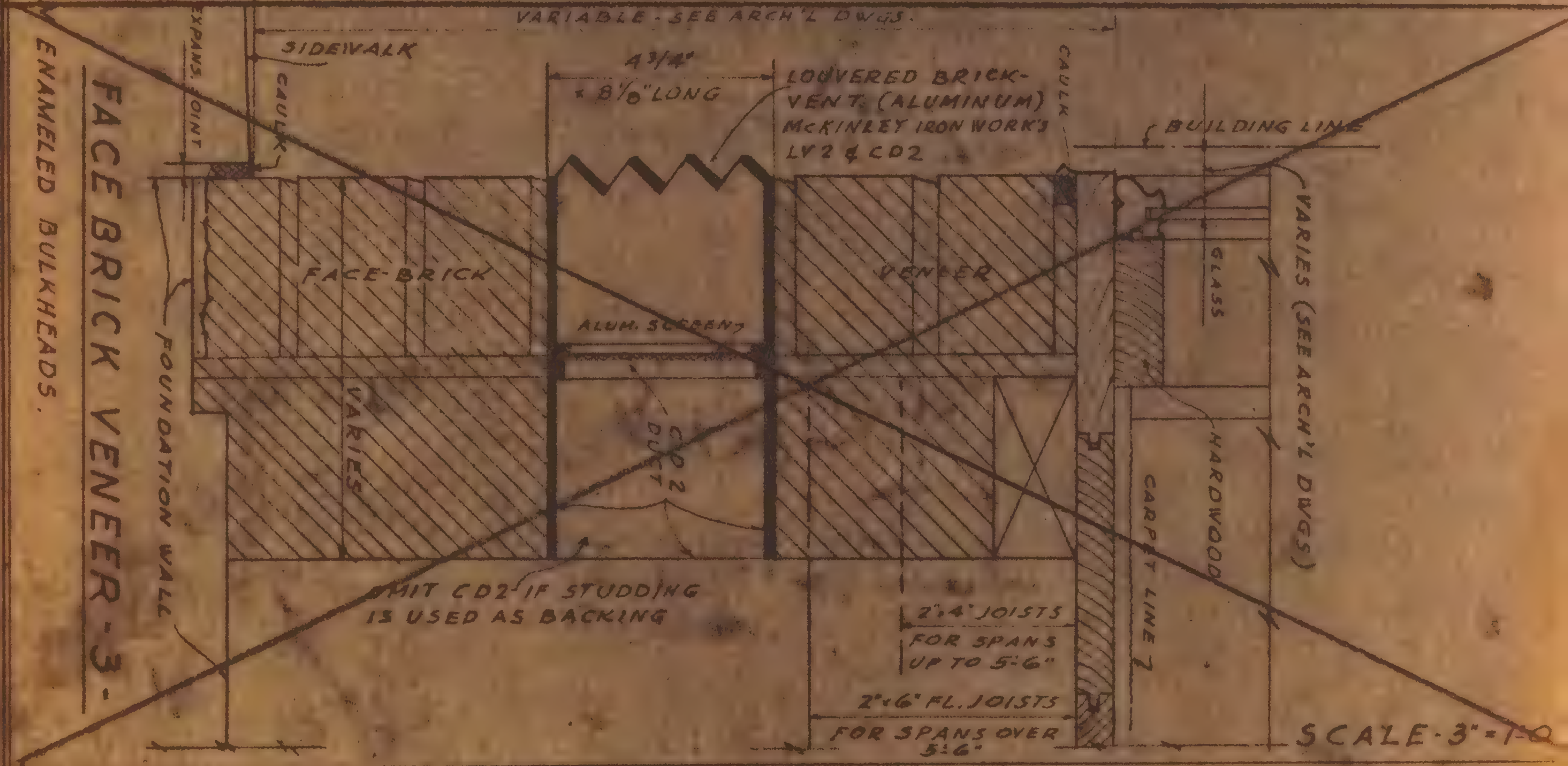
NOTE: PROVIDE LOUVERED VENT WITH DUCT AND FLY SCREEN FOR PORCELAIN ENAMELED BULKHEADS.

CERAMIC VENEER -2-

ADHESION TYPE


SIDEWALK
VARIABLE - SEE ARCH'L DWGS
3/8"
EXPANS. JOINT
CAULK
VENT SLOT CENTERED IN BULKHEAD
3/4" SETTING BED
5/8" SCRATCH COAT
3/8" RIBBED METAL LATH (3.4#)
1 5/8"
1 1/2" × 2" × 3/16" L - SPIKED TO PLATE EVERY 6"
1" CERAMIC VENEER
BUILDING LINE
CAULK
GLASS
VARIES (SEE ARCH'L DWG'S)
ALUM. VENT SLEEVE & FLY SCREEN
W. P. BUILDING PAPER
FOUNDATION WALL
2"×4"
MORTAR BED
1/2" ϕ BOLTS - 5'-0" O.C.
2"×4" STUDS - 16" O.C.
1"×6" RIBBON
2"×4"
2"×4" JOISTS FOR SPANS UP TO 5'-6"
2"×6" FL. JOISTS FOR SPANS OVER 5'-6"
HARDWOOD
CARPET LINE
TOP OF FIN. FL. SLAB

FACE BRICK VENEER -3-


VARIABLE - SEE ARCH'L DWGS.
SIDEWALK
EXPANS. JOINT
CAULK
4 3/4" × 8 1/8" LONG
LOUVERED BRICK-VENT (ALUMINUM) McKINLEY IRON WORKS LV2 & CD2
CAULK
BUILDING LINE
FACE-BRICK
VENEER
ALUM. SCREEN
GLASS
VARIES (SEE ARCH'L DWGS)
VARIES
CD2 DUCT
FOUNDATION WALL
OMIT CD2 IF STUDDING IS USED AS BACKING
2"×4" JOISTS FOR SPANS UP TO 5'-6"
2"×6" FL. JOISTS FOR SPANS OVER 5'-6"
HARDWOOD
CARPET LINE

SCALE - 3" = 1'-0

BULKHEAD DETAILS

REDRAWN BY:
F.K.K. 3-21-55
REV. 9-9-55 F.K.K.
REV. 5-17-56 F.K.K.
REV. 4-12-57 F.K.K.

J. C. PENNEY CO. INC.
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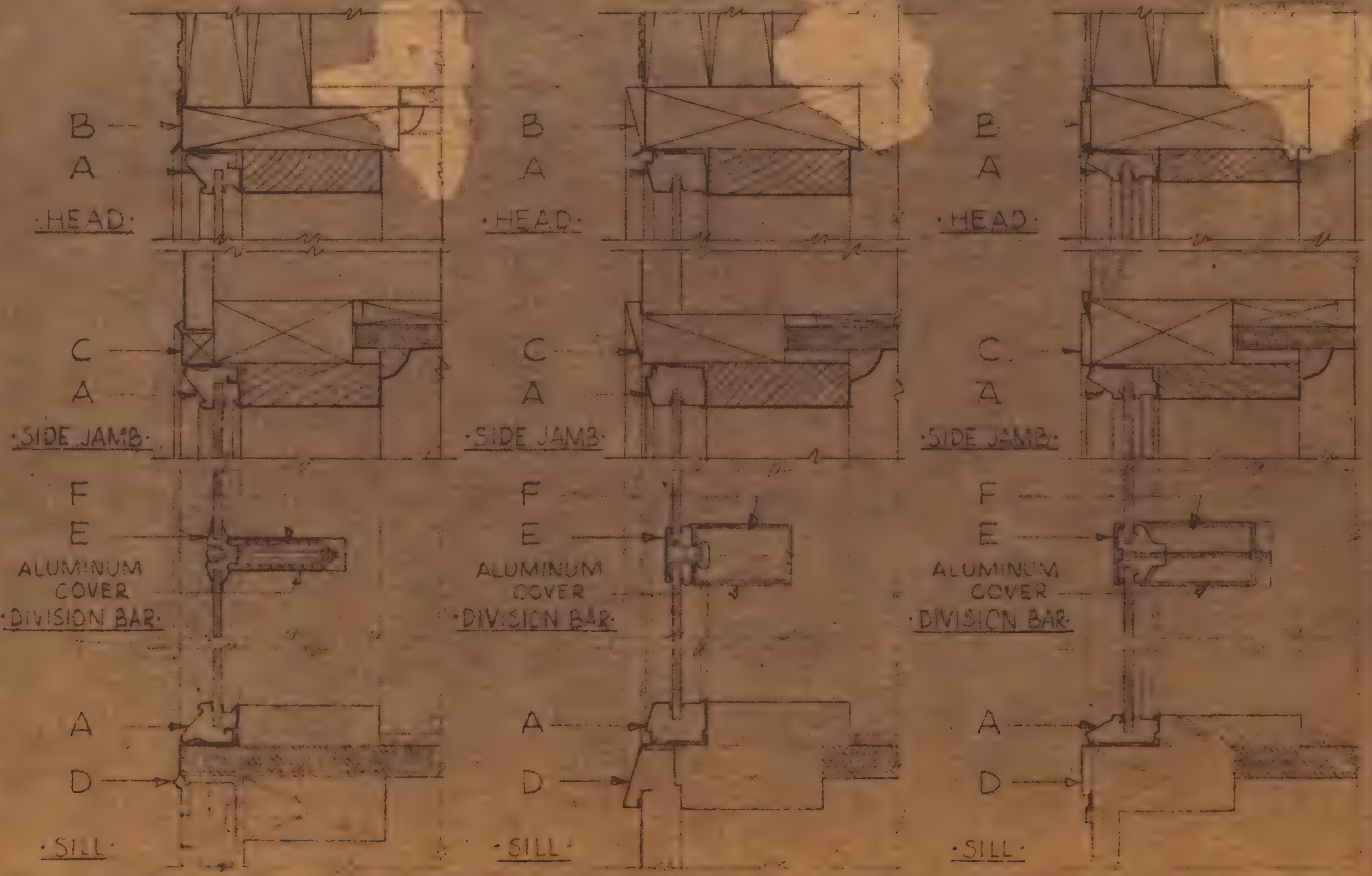
330 W. 34th ST. · NEW YORK CITY

DETAIL N

8

		PITTCO PITTSBURGH PLATE GLASS CO. PITTSBURGH, PENNA.	Kawneer THE KAWNEER CO NILES, MICH.	Brasco BRASCO MANUFACTURING CO HARVEY, ILL
SASH	A	70	10-120	109
HEAD JAMB COVERING	B	2132 ALT., OR 2049	11-102	189
SIDE JAMB COVERING	C	2030	11-301	188
SILL COVERING	D	2025	11-503	177
DIVISION BAR	E	SEE NOTE, 22	SEE NOTE, 12-102	SEE NOTE, 430
BAR REINFORCEMENT	F	" " , "H", OR "M"	" " ,	" " , 437 OR 432 W/ALUM. STIFFENER 24-439)
VESTIBULE HEAD JAMB COVER		2030	11-301	188
CORNER BAR		SEE NOTE, 20	SEE NOTE, 2-503 OR 12-502	SEE NOTE, 450 OR 440
REVERSE BAR		" " , 30	" " , 12-505	" " , 460


B
A
·HEAD·
C
A
·SIDE JAMB·
F
E
ALUMINUM COVER
·DIVISION BAR·
A
D
·SILL·
B
A
·HEAD·
C
A
·SIDE JAMB·
F
E
ALUMINUM COVER
·DIVISION BAR·
A
D
·SILL·
B
A
·HEAD·
C
A
·SIDE JAMB·
F
E
ALUMINUM COVER
·DIVISION BAR·
A
D
·SILL·

NOTES:
DIVISION, CORNER & REVERSE BARS SHALL HAVE REINFORCEMENT SUITABLE TO GLASS AREA. ALL REINFORCEMENT SHALL HAVE ALUMINUM COVERS.

SEE ARCHITECTURAL DRAWINGS FOR EXACT CONSTRUCTION AT SHOW WINDOWS.

SCALE: 3" = 1'-0"

SHOW WINDOW, SASH DETAIL

J.C. PENNEY CO. INC.
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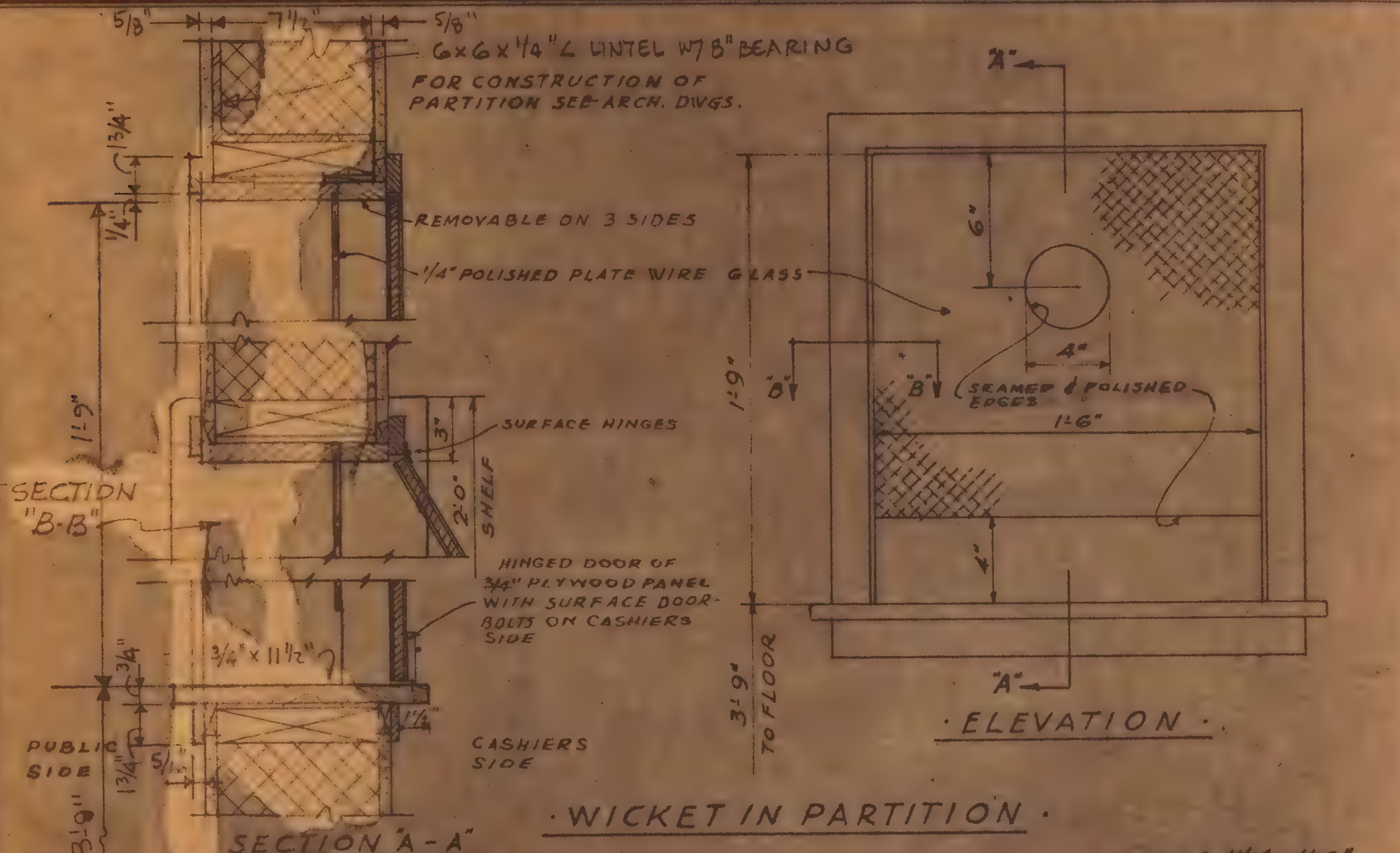
·CONSTRUCTION DIVISION·
330 W. 34TH ST. NEW YORK CITY.

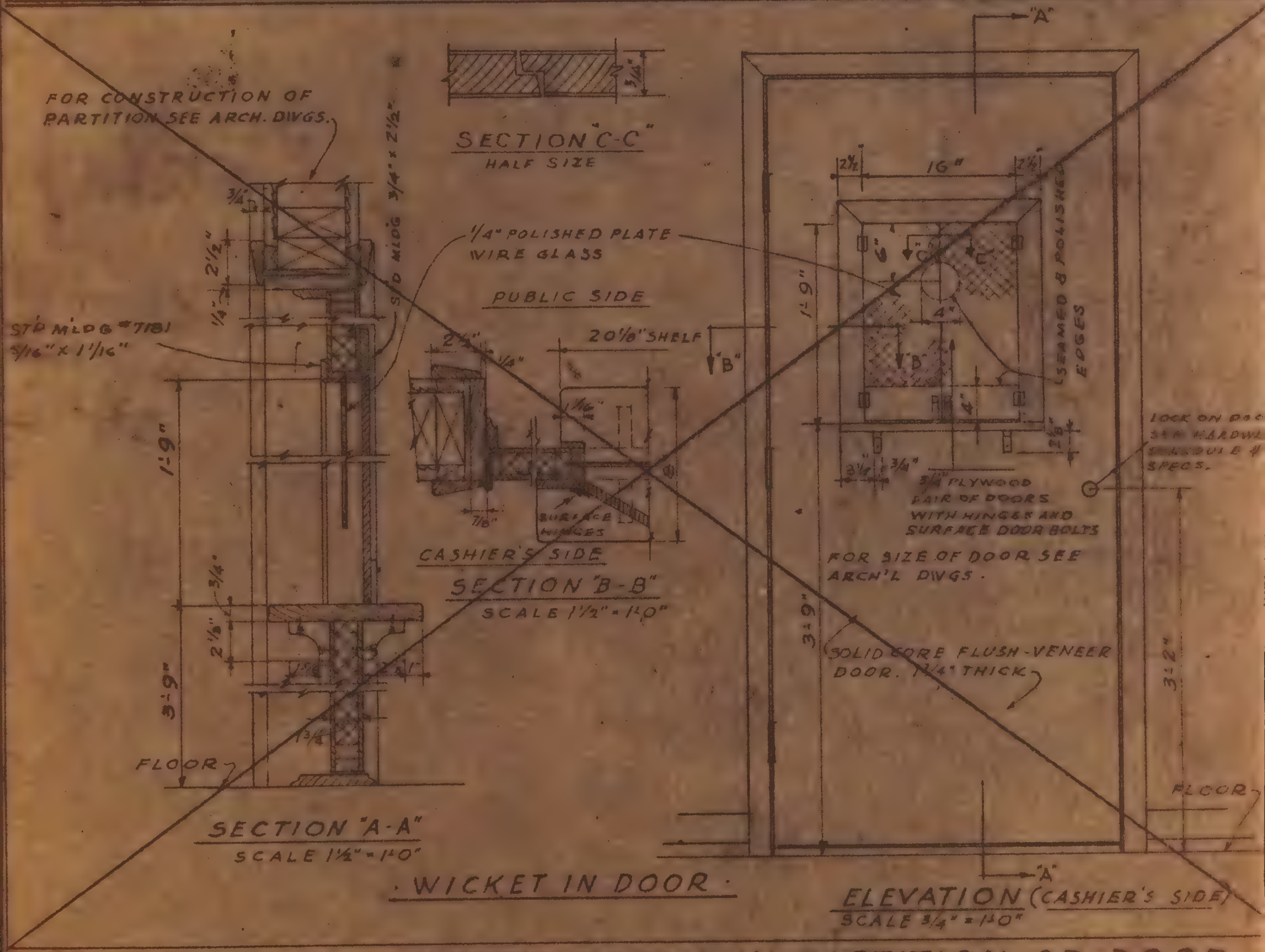
DETAIL No 8A12

REV. & DRAWN BY PBW 5-15-58


5/8"
7 1/2"
5/8"
6x6x1/4" ∠ LINTEL W/ 8" BEARING
FOR CONSTRUCTION OF PARTITION SEE ARCH. DWGS.
1 3/4"
1/4"
REMOVABLE ON 3 SIDES
1/4" POLISHED PLATE WIRE GLASS
1'-9"
3"
SURFACE HINGES
2'-0" SHELF
SECTION "B-B"
HINGED DOOR OF 3/4" PLYWOOD PANEL WITH SURFACE DOOR-BOLTS ON CASHIERS SIDE
3/4" x 11 1/2"
3/4"
1 1/4"
PUBLIC SIDE
5/16
1 3/4"
3'-9"
CASHIERS SIDE
SECTION "A-A"
"A"
6"
"B"
"B"
4"
SEAMED & POLISHED EDGES
1'-6"
1'-9"
4"
3'-9" TO FLOOR
"A"
ELEVATION

WICKET IN PARTITION

SCALE 1 1/2" = 1'-0"


FOR CONSTRUCTION OF PARTITION SEE ARCH. DWGS.
STD MLDG 3/4" x 2 1/2"
3/4"
SECTION "C-C"
HALF SIZE
3/4
2 1/2"
1/4"
1/4" POLISHED PLATE WIRE GLASS
PUBLIC SIDE
STD MLDG #7181 5/16" x 1 1/16"
2 1/2"
1/4"
20 1/8" SHELF
"B"
1'-9"
7/8"
SURFACE HINGES
CASHIER'S SIDE
SECTION "B-B"
SCALE 1 1/2" = 1'-0"
3/4
2 1/8"
3'-9"
1 3/4
FLOOR
SECTION "A-A"
SCALE 1 1/2" = 1'-0"
"A"
2 1/2
16"
2 1/2
1'-9"
6"
C
C
4"
B
4"
SEAMED & POLISHED EDGES
2 1/8"
3 1/4"
3/4"
3/4" PLYWOOD PAIR OF DOORS WITH HINGES AND SURFACE DOOR BOLTS
LOCK ON DOO
SEE HARDW
SCHEDULE &
SPECS.
FOR SIZE OF DOOR SEE ARCH'L DWGS.
3'-9"
SOLID CORE FLUSH-VENEER DOOR. 1 3/4" THICK
3'-2"
FLOOR
"A"
ELEVATION (CASHIER'S SIDE)
SCALE 3/4" = 1'-0"

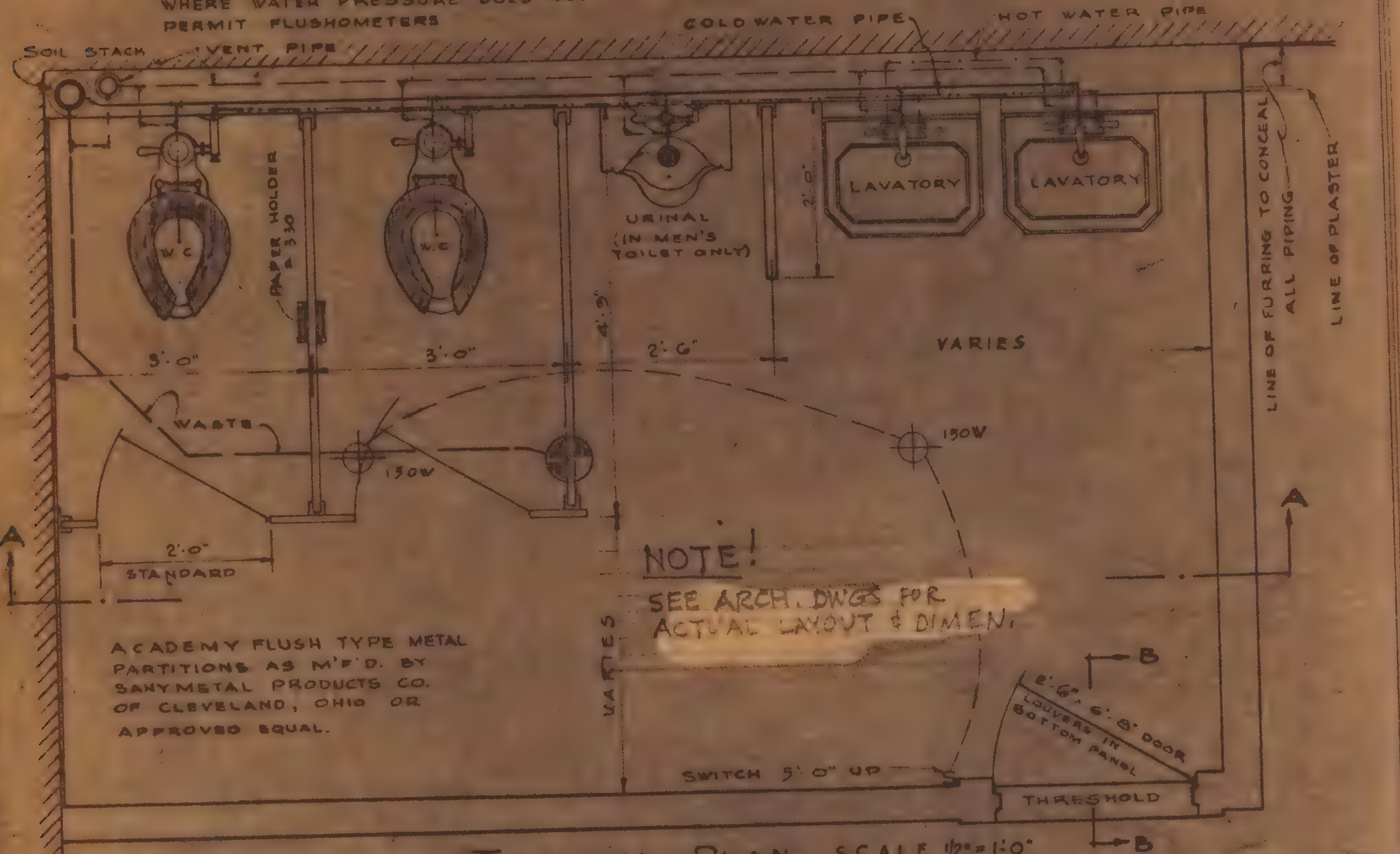
WICKET IN DOOR

WICKET FOR CASHIER'S ROOM IN PARTITION OR DOOR

REDRAWN BY:
F.R.K. 1-14-55
REV. 6-29-55 J.T.
REV. 2-15-56. F.K.K.
REV. 3-7-56. F.K.K.
REV. 4-11-56. F.K.K.

J. C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34TH ST. · NEW YORK CITY ·

DETAIL Nº
10 6


SOIL STACK
VENT PIPE
COLD WATER PIPE
HOT WATER PIPE
W.C.
W.C.
PAPER HOLDER # 330
URINAL (IN MEN'S TOILET ONLY)
LAVATORY
LAVATORY
2'-0"
4'-9"
3'-0"
3'-0"
2'-6"
VARIES
VARIES
LINE OF FURRING TO CONCEAL ALL PIPING
LINE OF PLASTER
WASTE
150W
150W
2'-0"
STANDARD
A
A
B
B
2'-6" x 6'-8" DOOR LOUVERS IN BOTTOM PANEL
THRESHOLD
SWITCH 5'-0" UP

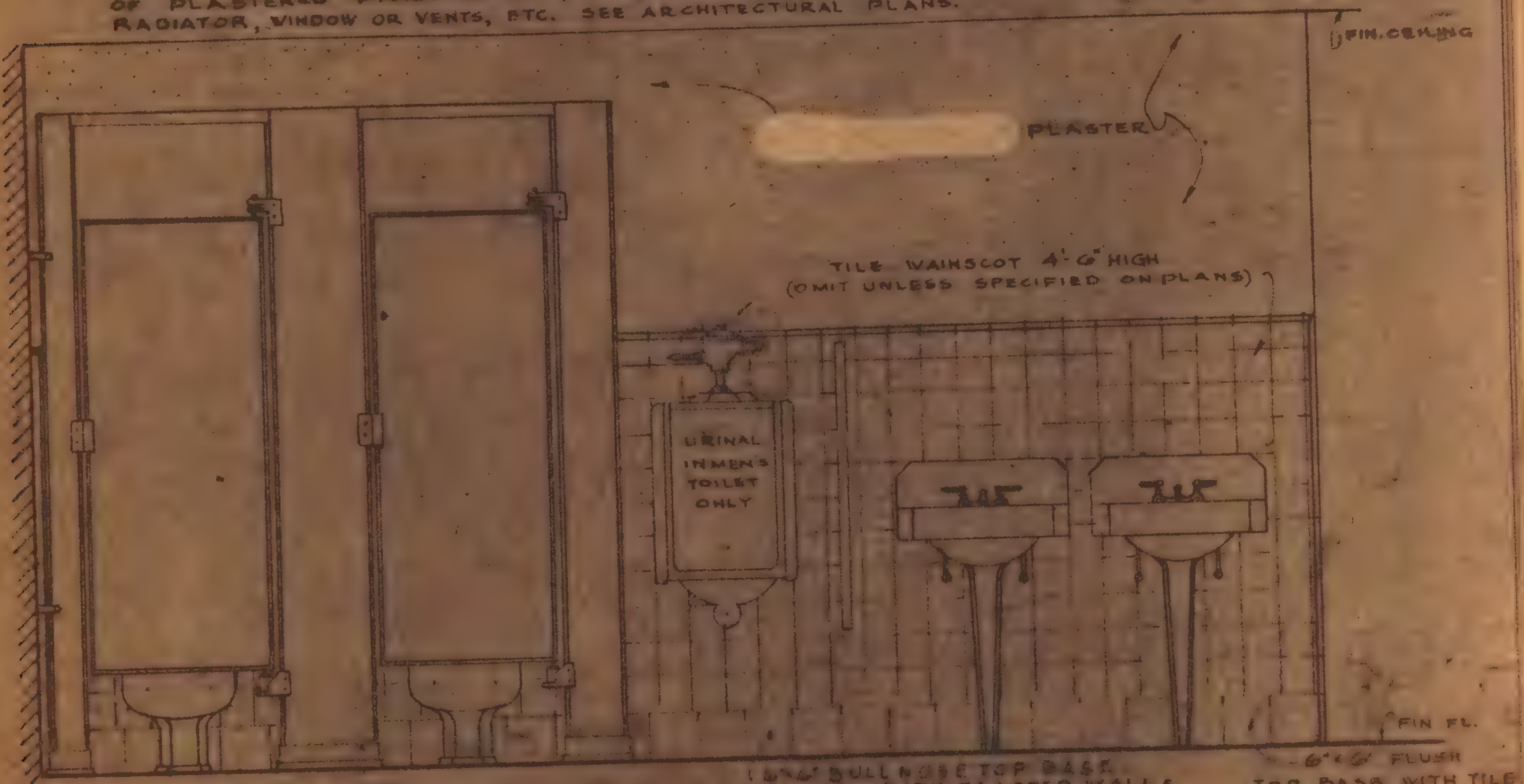
NOTE:
INSTALL TANK TYPE W.C. & URINAL WHERE WATER PRESSURE DOES NOT PERMIT FLUSHOMETERS

NOTE!
SEE ARCH. DWGS FOR ACTUAL LAYOUT & DIMEN.

ACADEMY FLUSH TYPE METAL PARTITIONS AS M'F'D. BY SANYMETAL PRODUCTS CO. OF CLEVELAND, OHIO OR APPROVED EQUAL.

TYPICAL PLAN. SCALE 1/2" = 1'-0"

FOR VARIATIONS IN DESIGN, DIMENSIONS & MATERIALS, FOR CONSTRUCTION OF PLASTERED PARTITIONS & FURRING, ALSO FOR LOCATION & SIZE OF RADIATOR, WINDOW OR VENTS, ETC. SEE ARCHITECTURAL PLANS.

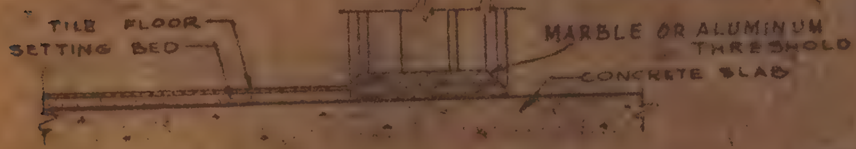

FIN. CEILING
PLASTER
URINAL IN MEN'S TOILET ONLY
FIN FL.

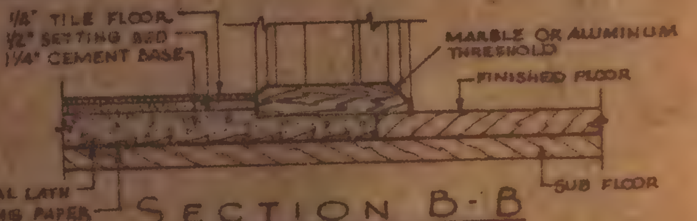
TILE WAINSCOT 4'-6" HIGH (OMIT UNLESS SPECIFIED ON PLANS)

6"x6" BULL NOSE TOP BASE WITH PLASTER WALLS.

6"x6" FLUSH TOP BASE WITH TILE WAINSCOT ONLY

ELEVATION · A-A
SCALE 1/2" = 1'-0"


TILE FLOOR
SETTING BED
MARBLE OR ALUMINUM THRESHOLD
CONCRETE SLAB


1/8" TILE FLOOR
1/2" SETTING BED
1 1/4" CEMENT BASE
MARBLE OR ALUMINUM THRESHOLD
FINISHED FLOOR
SUB FLOOR
METAL LATH
BUILDING PAPER

SECTION B-B
SCALE 1 1/2" = 1'-0"

OR →

SECTION B-B
SCALE 1 1/2" = 1'-0"

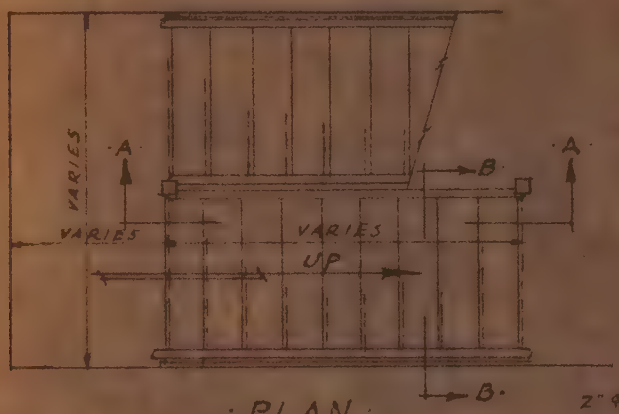
TYPICAL TOILET ROOM.

DRAWN BY:
L.R. 8-18-53
REV. 9-15-53 NAD
REV. 12-1-53 F.K.K.
REV. 12-12-53 F.K.K.
REV. 10-19-56 F.K.K.
REV. 2-2-59 C.A.R.

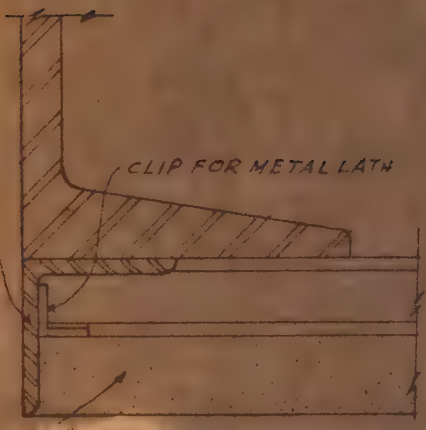
J.C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34TH ST. NEW YORK CITY.

DETAIL No
16B5

NOTE:
UNLESS OTHERWISE NOTED ON DRAWINGS, OR REQUIRED BY LOCAL OR STATE BUILDING CODES OR REGULATIONS, STAIR SHALL BE OF THE FOLLOWING DIMENSIONS:
WIDTH OF STAIR - 2'-6" MINIMUM. WIDTH OF TREADS - 9½" MINIMUM. HEIGHT OF RISERS - 7½" MAXIMUM. HEIGHT OF HANDRAIL - 2'-8" FIXED DIMENSION.

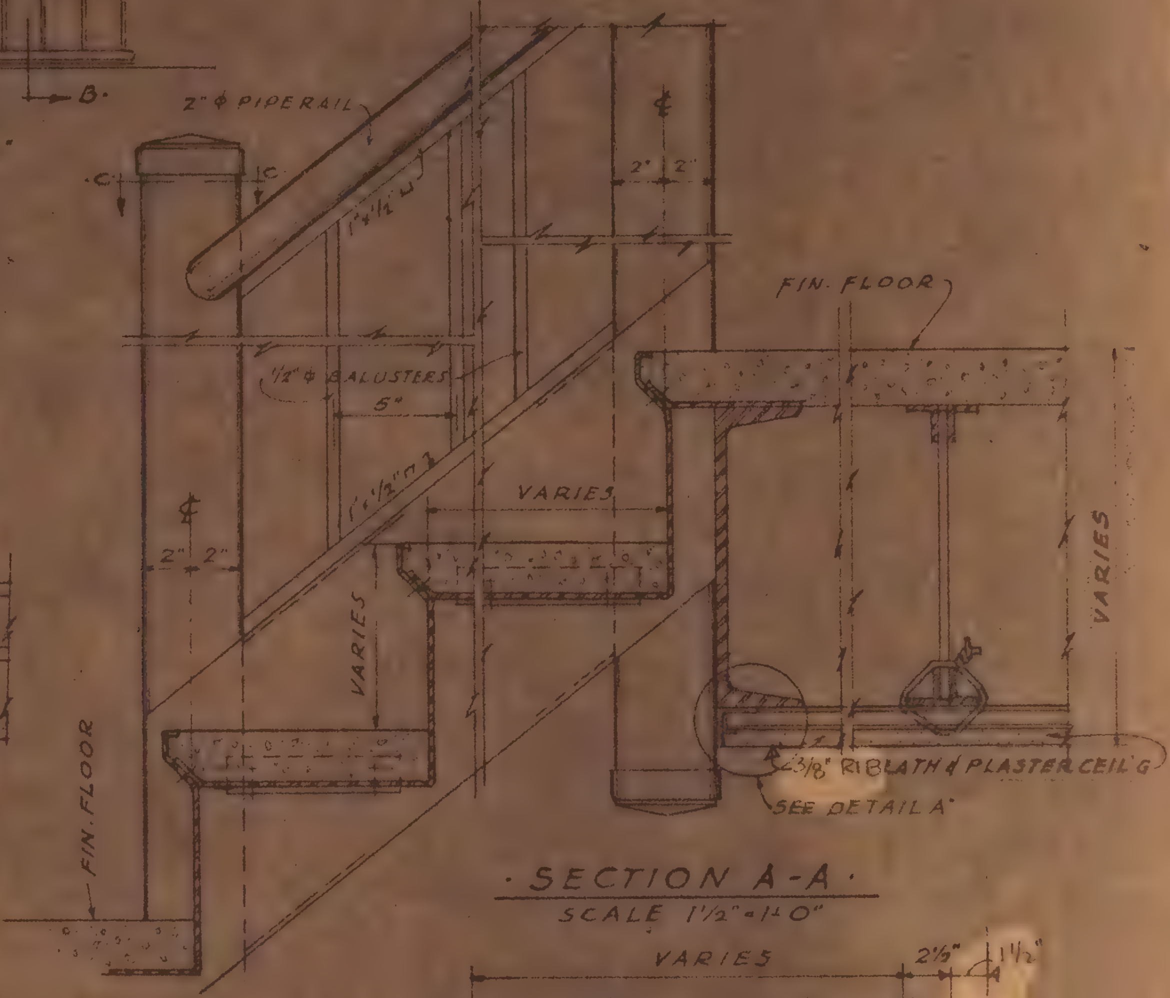

VARIES
A
A
B
VARIES
VARIES
UP
B

·PLAN·
SCALE ¼" = 1'-0"

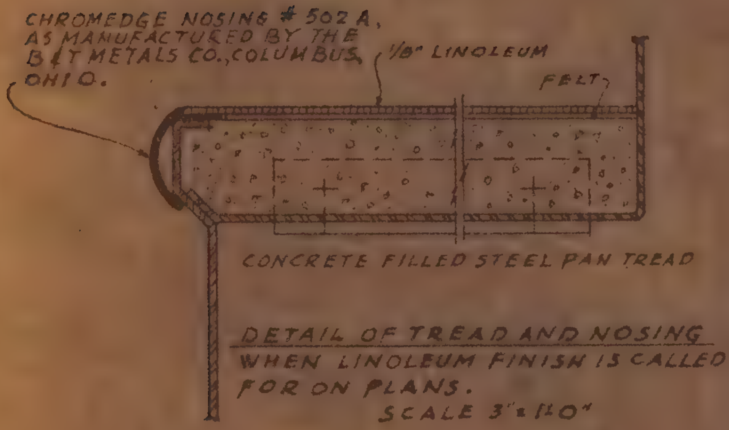

CLIP FOR METAL LATH
1½"×1½"×⅛" L

3/8" RIB LATH & PLASTER TO BOTT. OF JOISTS

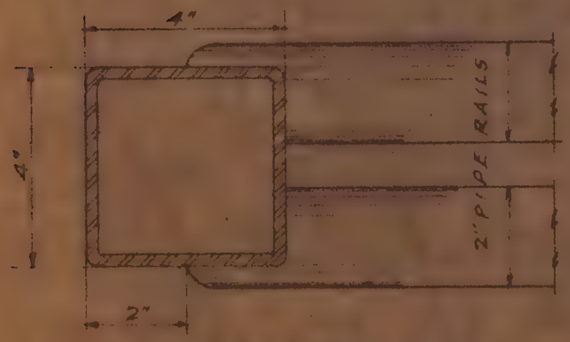
·DETAIL "A"·
½ FULL SIZE


2" ø PIPE RAIL
C
C
1"×1½" ⊔
℄
2" 2"
½" ø BALUSTERS
5"
1"×1½" ⊔
℄
2" 2"
VARIES
VARIES
FIN. FLOOR
FIN. FLOOR
VARIES
3/8" RIB LATH & PLASTER CEIL'G
SEE DETAIL A

·SECTION A-A·
SCALE 1½" = 1'-0"

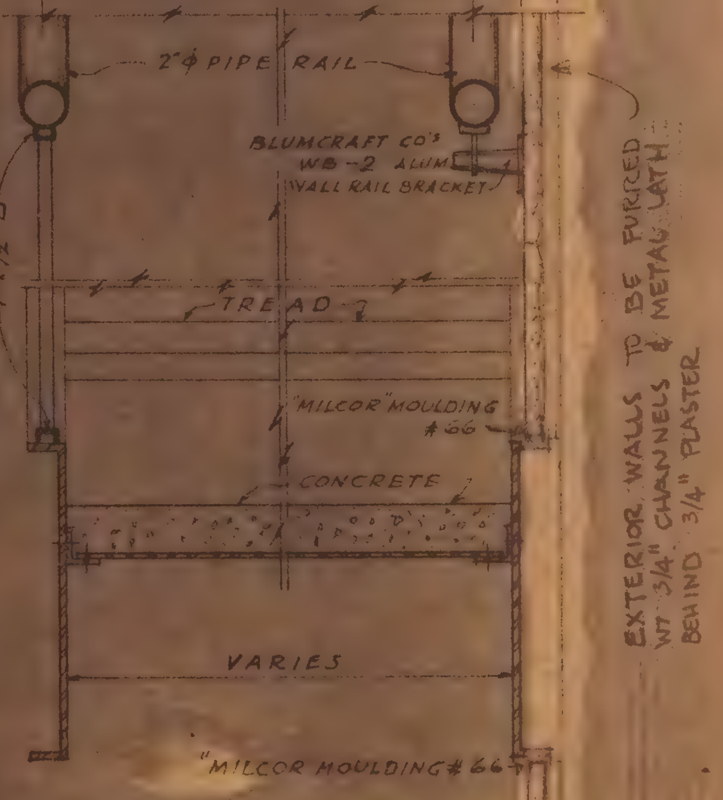

CHROMEDGE NOSING # 502 A, AS MANUFACTURED BY THE B & T METALS CO., COLUMBUS, OHIO.
⅛" LINOLEUM
FELT
CONCRETE FILLED STEEL PAN TREAD

DETAIL OF TREAD AND NOSING
WHEN LINOLEUM FINISH IS CALLED FOR ON PLANS.
SCALE 3" = 1'-0"


4"
4"
2" PIPE RAILS
2"

·SECTION C-C·
SCALE 3" = 1'-0"

NOTE!
SEE ARCH. DWGS. FOR ACTUAL LAYOUT & DIMENSIONS.


VARIES
2½"
1½"
2" ø PIPE RAIL
BLUMCRAFT CO'S WB-2 ALUM. WALL RAIL BRACKET
1"×1½" ⊔
TREAD
"MILCOR" MOULDING # 66
CONCRETE
VARIES
"MILCOR" MOULDING # 66
EXTERIOR WALLS TO BE FURRED WT. ¾" CHANNELS & METAL LATH BEHIND ¾" PLASTER

·SECTION B-B·
SCALE 1½" = 1'-0"

SCALE AS INDICATED

·STAIR DETAILS·

REVISED & REDRAWN BY:
F.K.K. 8-31-55.
REV. 6-21-56. F.K.K.
REV. 10-21-57. W.P.H.

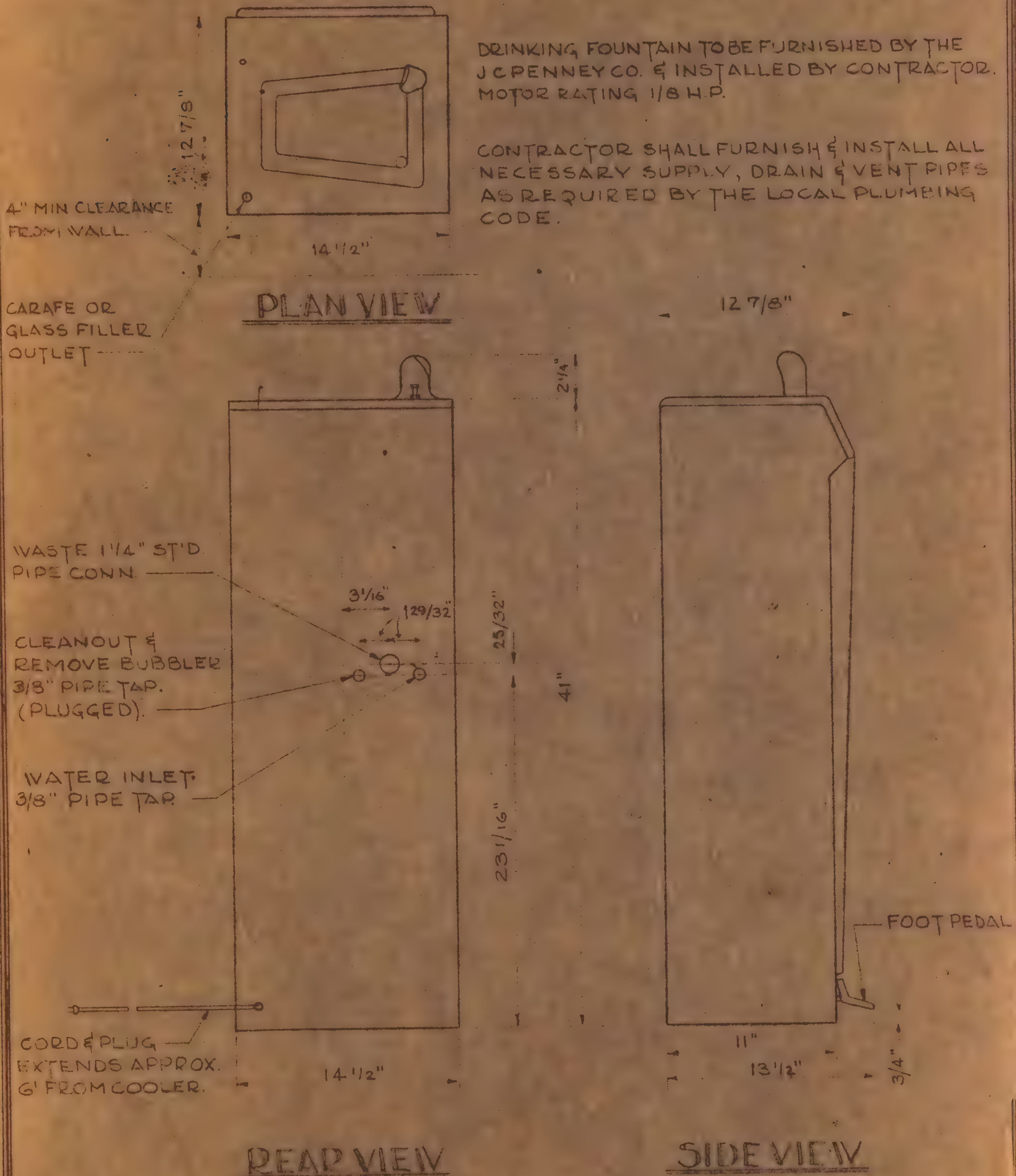
J. C. PENNEY CO. INC.

·REAL ESTATE DEPARTMENT·
·CONSTRUCTION DIVISION·
330 W. 34TH ST. ·NEW YORK CITY·

DETAIL Nº
25A⁷

DRINKING FOUNTAIN TO BE FURNISHED BY THE J C PENNEY CO. & INSTALLED BY CONTRACTOR. MOTOR RATING 1/8 H.P.

CONTRACTOR SHALL FURNISH & INSTALL ALL NECESSARY SUPPLY, DRAIN & VENT PIPES AS REQUIRED BY THE LOCAL PLUMBING CODE.


12 7/8"
4" MIN CLEARANCE FROM WALL
14 1/2"
PLAN VIEW
CARAFE OR GLASS FILLER OUTLET
12 7/8"
2 1/4"
WASTE 1 1/4" ST'D PIPE CONN.
3 1/16"
1 29/32"
25/32"
41"
CLEANOUT & REMOVE BUBBLER 3/8" PIPE TAP. (PLUGGED).
WATER INLET 3/8" PIPE TAP
23 1/16"
FOOT PEDAL
CORD & PLUG EXTENDS APPROX. 6' FROM COOLER.
14 1/2"
11"
13 1/2"
3/4"
REAR VIEW
SIDE VIEW

GENERAL ELECTRIC MODEL RSA9C

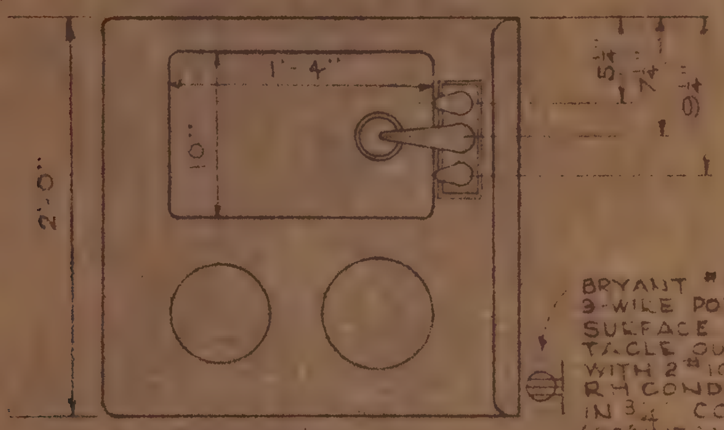
SCALE: 1 1/2" = 1'-0"

ELECTRIC COOLED DRINKING FOUNTAIN

DRAWN BY:
WPH 10-14-57

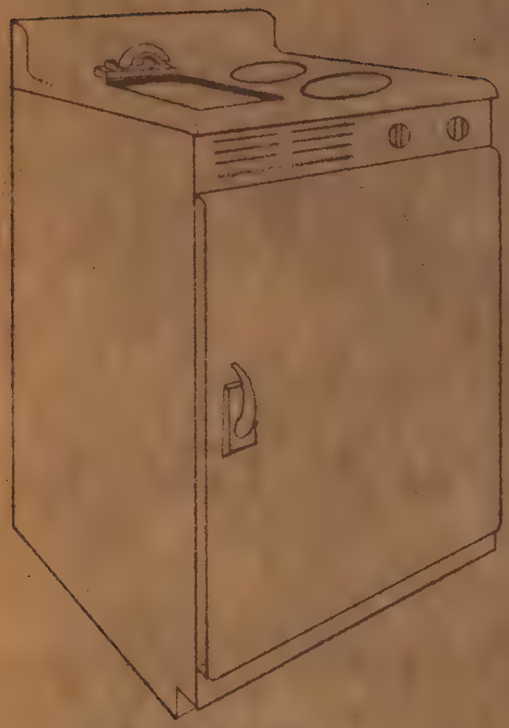
J.C. PENNEY CO. INC.
· REAL ESTATE DEPARTMENT ·
· CONSTRUCTION DIVISION ·
330 W. 34TH ST.
NEW YORK CITY.

DETAIL NO.
33


1'-4"
10"
2'-0"
5¼
7¼
9¼

BRYANT # 9304
3-WIRE POLARIZED
SURFACE RECEP-
TACLE OUTLET 30A
WITH 2 # 10 TYPE
RH CONDUCTOR
IN ¾" CONDUIT.
(CONNECT TO 30A
SINGLE POLE
BREAKER AT
NEAREST
LIGHTING PANEL.)

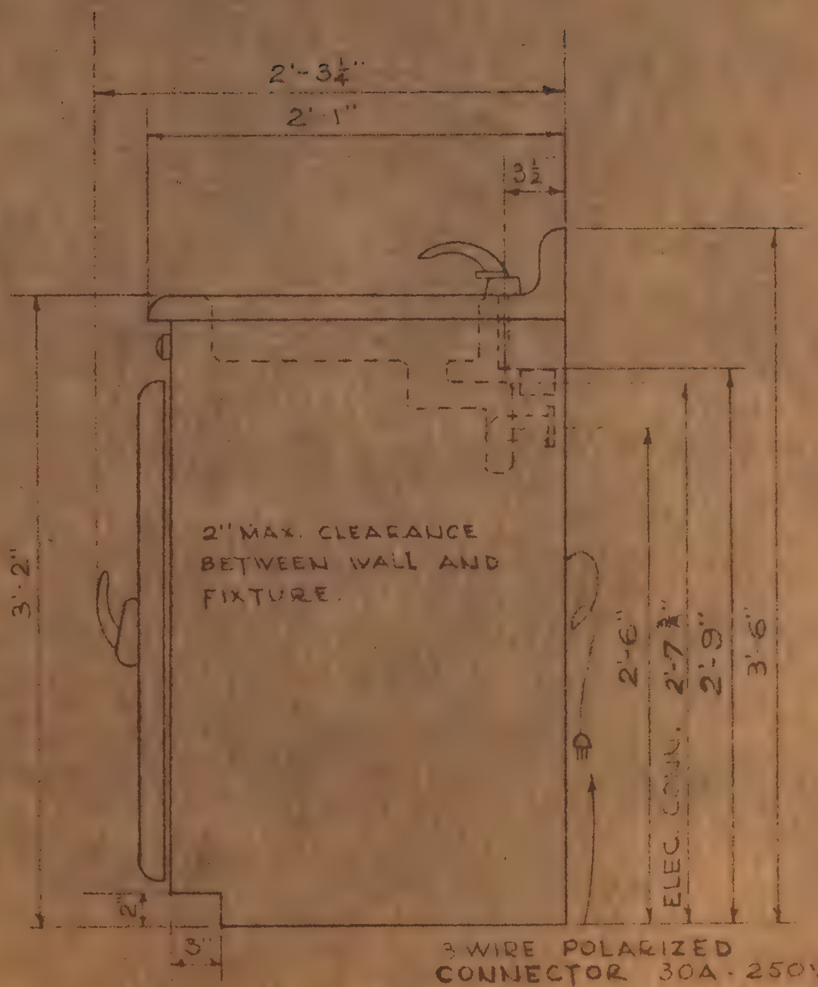
·TOP VIEW·



·PERSPECTIVE·

THIS COMBINATION UNIT SHALL BE "DAVIS EFFICIENCY KITCHEN" MADE BY DAVIS PRODUCTS CO., NILES, MICH. MODEL 242 SE. EQUIPPED WITH 8" CENTER CHROME MIXING FAUCETS. TWO 1500 W. TOP BURNERS. 115-120 V. 60 CYCLE A.C. ONLY. REFRIGERATION 4 CU. FT. NET. 110V. 60 CYCLE A.C. ONLY.

UNIT WILL BE FURNISHED BY THE J C P CO. AND SHALL BE INSTALLED BY THE CONTRACTOR.


2'-3¼"
2'-1"
3½
2" MAX. CLEARANCE BETWEEN WALL AND FIXTURE.
3'-2"
2'-6"
ELEC. CONN. 2'-7¾"
2'-9"
3'-6"
2"
3"
3 WIRE POLARIZED CONNECTOR 30A-250V

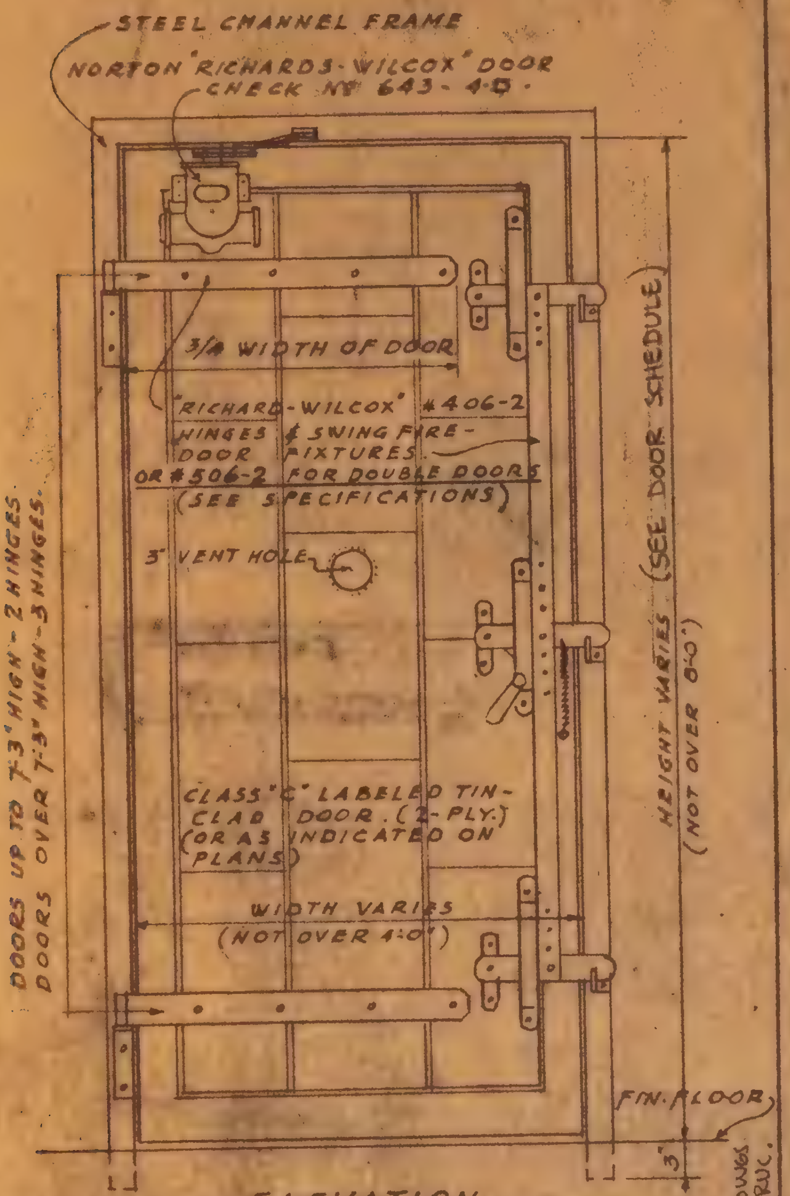
·SIDE ELEVATION·

INC.

NEW YORK CITY.

DETAIL NO

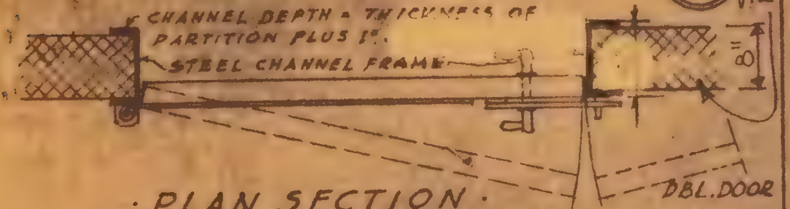
33A


STEEL CHANNEL FRAME
NORTON "RICHARDS-WILCOX" DOOR CHECK No 643-4-D.
3/4 WIDTH OF DOOR
"RICHARDS-WILCOX" #406-2 HINGES & SWING FIRE-DOOR FIXTURES OR #506-2 FOR DOUBLE DOORS (SEE SPECIFICATIONS)
3" VENT HOLE
CLASS "C" LABELED TIN-CLAD DOOR. (2-PLY.) (OR AS INDICATED ON PLANS)
WIDTH VARIES (NOT OVER 4'-0")
HEIGHT VARIES (SEE DOOR SCHEDULE) (NOT OVER 8'-0")
DOORS UP TO 7'-3" HIGH - 2 HINGES.
DOORS OVER 7'-3" HIGH - 3 HINGES.
FIN. FLOOR
3"
SEE ARCH. DWGS FOR CONSTRUC.

·ELEVATION·

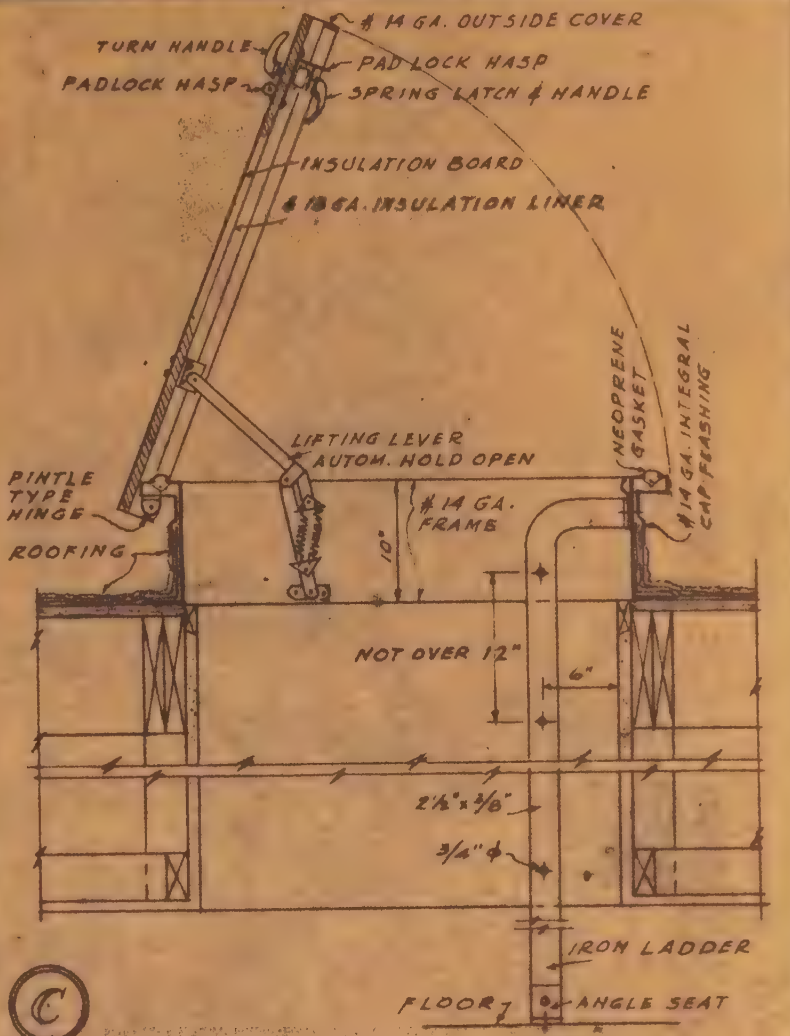
CUT 3" VENT HOLE (THRU TIN ONLY) ON EXPOSED SIDE OF DOOR. SECURE TIN AROUND HOLE WITH SMALL NAILS. PAINT WOOD CORE.

A


CHANNEL DEPTH = THICKNESS OF PARTITION PLUS 1".
STEEL CHANNEL FRAME
8"
DBL. DOOR

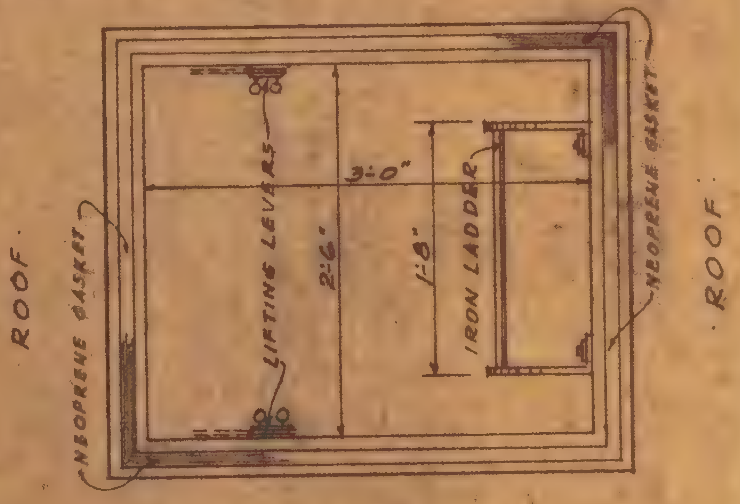
·PLAN SECTION·

·BOILER ROOM DOOR·


# 14 GA. OUTSIDE COVER
TURN HANDLE
PAD LOCK HASP
PADLOCK HASP
SPRING LATCH & HANDLE
INSULATION BOARD
# 18 GA. INSULATION LINER
NEOPRENE GASKET
#14 GA. INTEGRAL CAP FLASHING
LIFTING LEVER AUTOM. HOLD OPEN
PINTLE TYPE HINGE
ROOFING
#14 GA. FRAME
10"
NOT OVER 12"
6"
2½"x⅜"
¾"ϕ
IRON LADDER
FLOOR
ANGLE SEAT
C

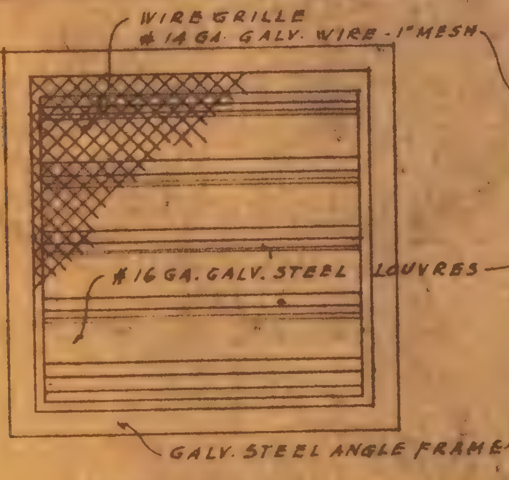
·SECTION THRU SCUTTLE·

'BILCO' TYPE S20 ROOF SCUTTLE AS MANUFACTURED BY THE BILCO COMPANY, 164 HALLOCK AVE. NEW HAVEN 5, CONN.

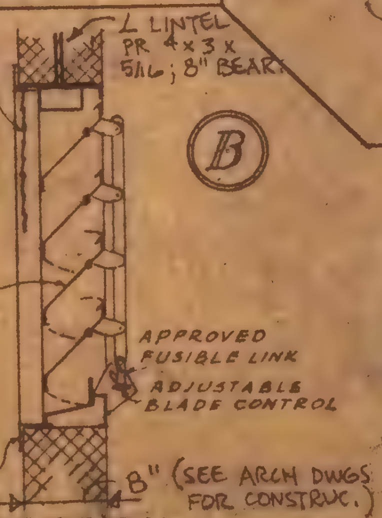

ROOF
NEOPRENE GASKET
LIFTING LEVERS
3'-0"
2'-6"
1'-8"
IRON LADDER
NEOPRENE GASKET
ROOF

·PLAN·

·ROOF SCUTTLE·


WIRE GRILLE #14 GA. GALV. WIRE - 1" MESH
#16 GA. GALV. STEEL
GALV. STEEL ANGLE FRAME

·ELEVATION·


L LINTEL PR. 4x3x5/16; 8" BEAR.
LOUVRES
APPROVED FUSIBLE LINK
ADJUSTABLE BLADE CONTROL
8" (SEE ARCH DWGS FOR CONSTRUC.)
B

·SECTION·

NOTE: VENTS SHALL BE AS MANUFACTURED BY H.H.W. BERGMANN CO. 126-132 NASSAU ST. NEW YORK 38, N.Y., OR AMERICAN FOUNDRY AND FURNACE CO. OF BLOOMINGTON, ILL. OTHER SIMILAR MAKES MAY BE USED IF APPROVED BY J.C. PENNEY CO.'S CONSTRUCTION DIVISION.

AREA OF OPENING MUST BE AT LEAST EQUAL TO CLEAR AREA OF BOILER FLUE. FOR SIZE OF OPENING, THICKNESS OF WALL, ETC. SEE ARCHITECTURAL PLANS.

BOILER ROOM VENT·

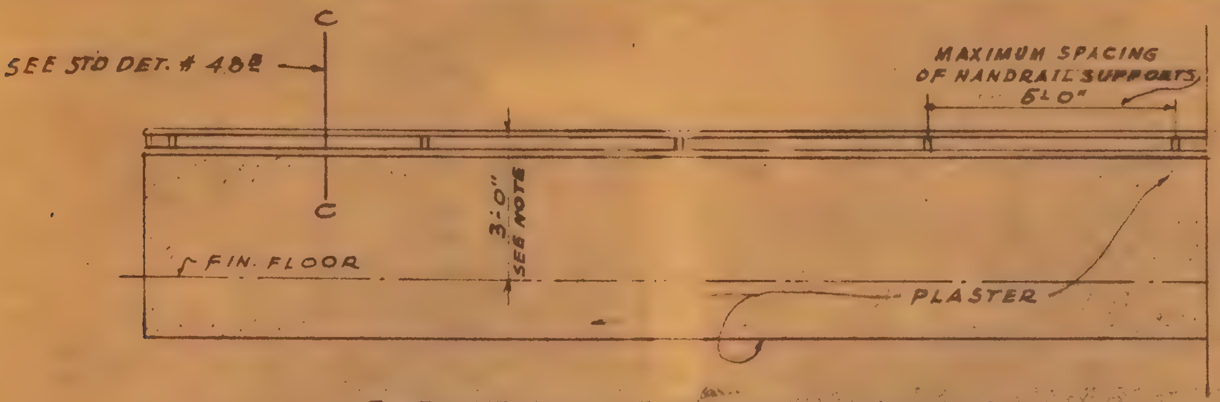
ALL DETAILS·SCALE ¾"=1'-0"

·BOILER ROOM DOOR & VENT· ·ROOF SCUTTLE·

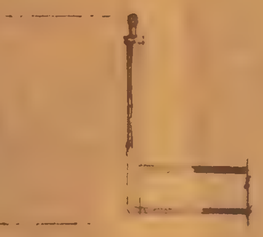
REDRAWN BY:
F.K.K. 3-19-54.
REV. 8-19-54 F.K.K
REV. 12-2-54 F.K.K
REV. 4-9-56 F.K.K
REV. 5-21-56. F.K.K
REV. 10-21-57. W.P.H.

J.C. PENNEY CO. INC.
·REAL ESTATE DEPARTMENT·
·CONSTRUCTION DIVISION·
330 W. 34TH ST. ·NEW YORK CITY·

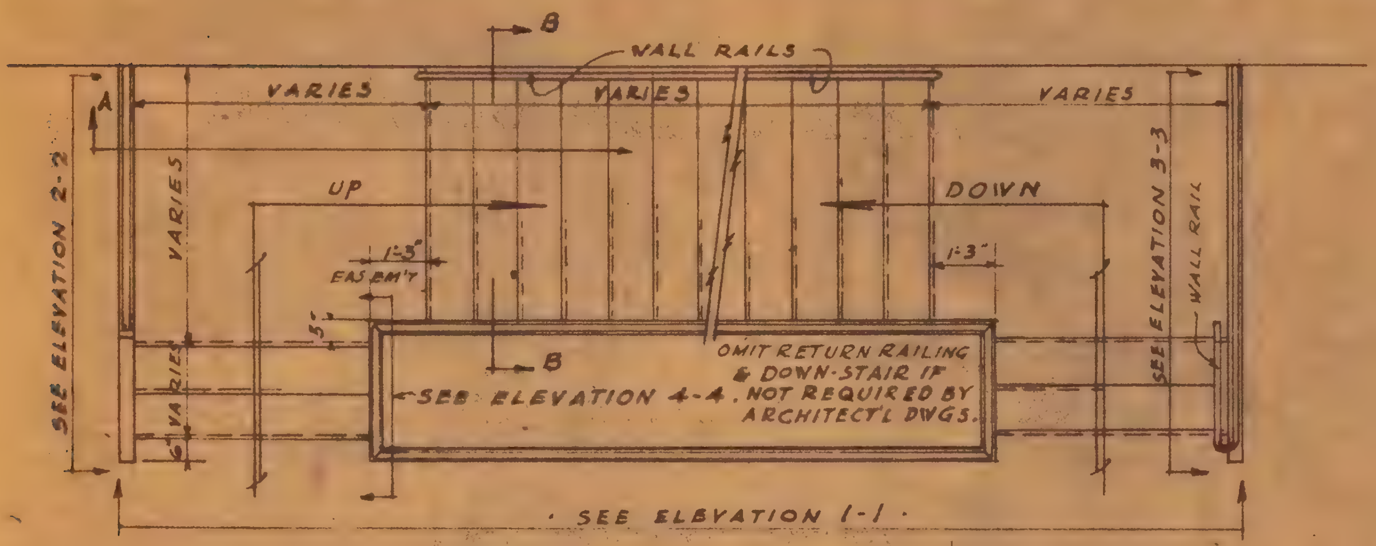
DETAIL No
43
18


SEE STD DET. # 48^{2}
C
C
MAXIMUM SPACING OF HANDRAIL SUPPORTS 6'-0"
3'-0" SEE NOTE
FIN. FLOOR
PLASTER

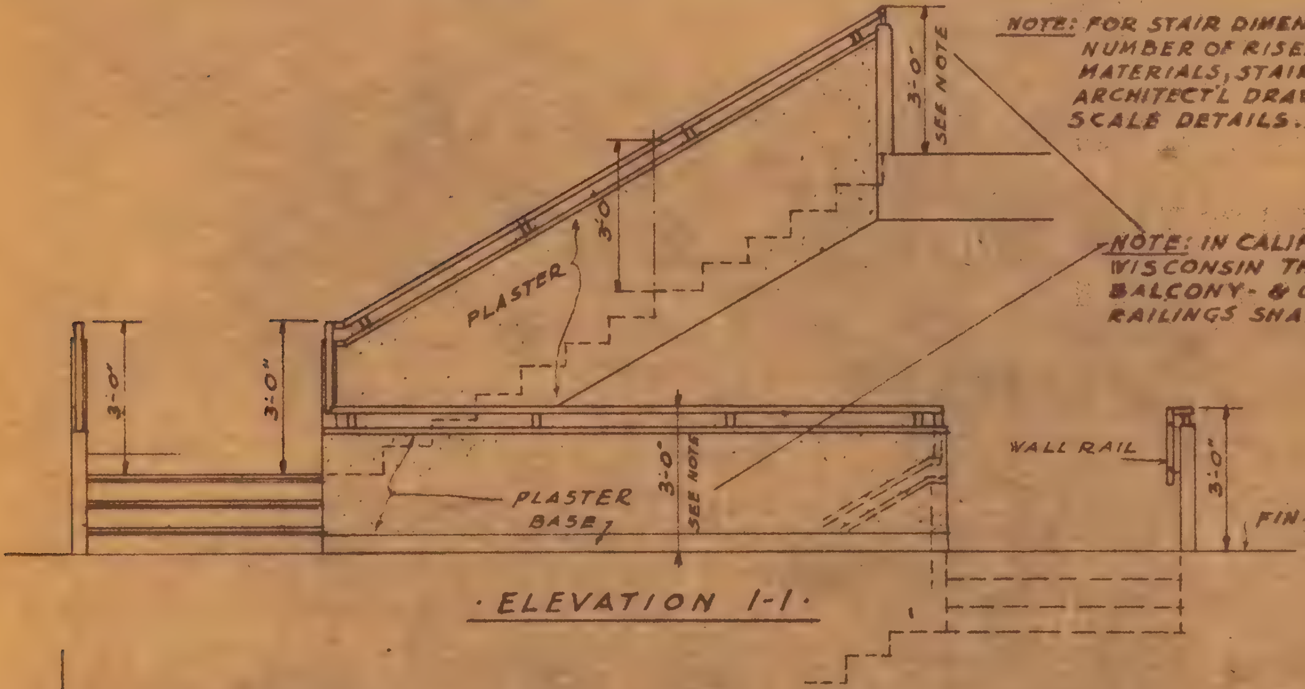
·ELEVATION OF FLOOR RAILING·



·SECTION·


B
WALL RAILS
VARIES
VARIES
VARIES
A
SEE ELEVATION 2-2
VARIES
UP
DOWN
1'-3" EAS'EM'T
1'-3"
5"
B
VARIES
SEE ELEVATION 4-4
OMIT RETURN RAILING & DOWN-STAIR IF NOT REQUIRED BY ARCHITECT'L DWGS.
SEE ELEVATION 3-3
WALL RAIL
SEE ELEVATION 1-1

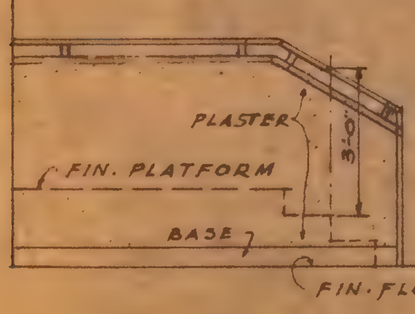
·PLAN OF STAIRS·


3'-0" SEE NOTE
3'-0"
PLASTER
3'-0"
3'-0"
PLASTER BASE
3'-0" SEE NOTE
WALL RAIL
3'-0"
FIN. FLOOR

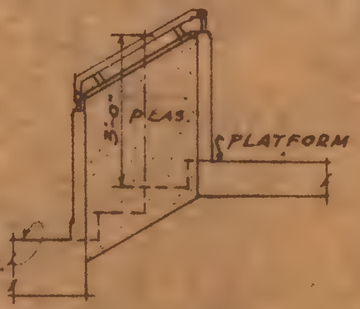
·ELEVATION 1-1·

NOTE: FOR STAIR DIMENSIONS, LOCATIONS, NUMBER OF RISERS & PLATFORMS, MATERIALS, STAIR LAYOUT ETC., SEE ARCHITECT'L DRAWINGS. SEE LARGE SCALE DETAILS.

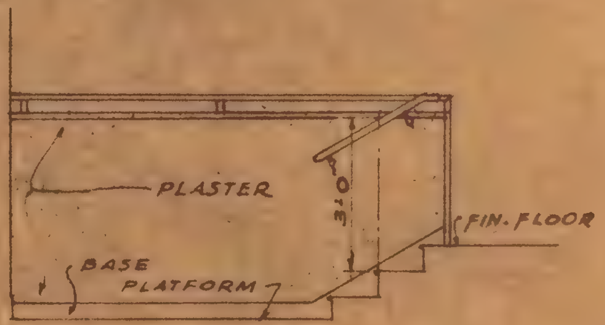
NOTE: IN CALIFORNIA AND IN WISCONSIN THE HEIGHT OF BALCONY- & OTHER HORIZONTAL RAILINGS SHALL BE 3'-6".


PLASTER
3'-0"
FIN. PLATFORM
BASE
FIN. FLOOR

·ELEVATION 2-2·


3'-0"
PLAS.
PLATFORM

·ELEVATION 4-4·


PLASTER
3'-0"
FIN. FLOOR
BASE
PLATFORM

·ELEVATION 3-3·

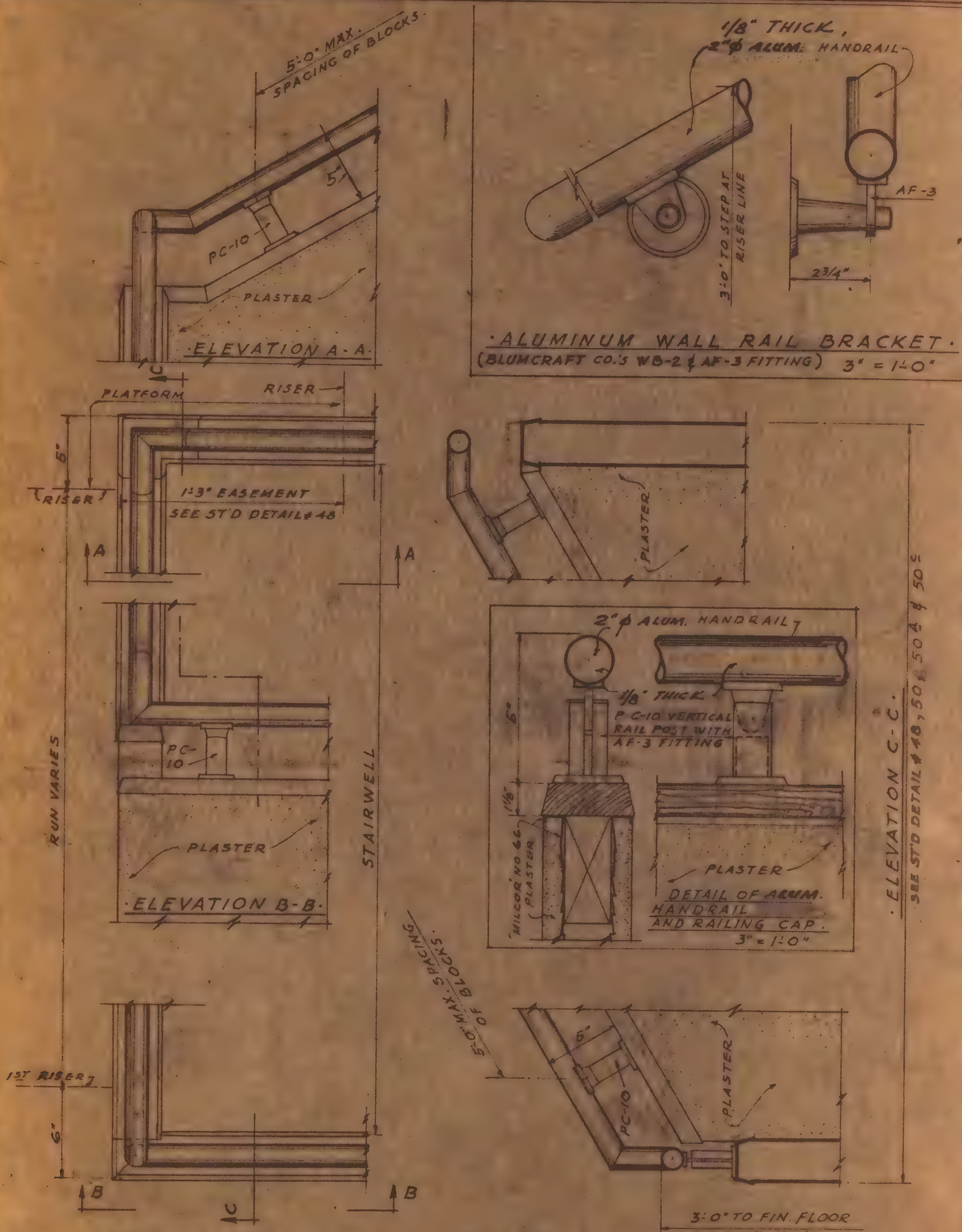
·SCALE 1/4" = 1'-0"·

STAIR DETAILS

REDRAWN
BY F.K.K. - 6-8-55
REV. 6-21-56. F.K.K.
REV. 4-1-57. F.K.K.

J.C. PENNEY CO. INC.
·REAL ESTATE DEPARTMENT·
·CONSTRUCTION DIVISION·
330 W. 34TH ST.
NEW YORK CITY·

DETAIL No
48^{5}


5'-0" MAX. SPACING OF BLOCKS
5"
PC-10
PLASTER
C
PLATFORM
RISER
5"
RISER
1'-3" EASEMENT
SEE ST'D DETAIL # 48
A
A
RUN VARIES
PC-10
PLASTER
STAIRWELL
1ST RISER
6"
B
B
C
1/8" THICK,
2" ϕ ALUM. HANDRAIL
3'-0" TO STEP AT RISER LINE
AF-3
2 3/4"
PLASTER
2" ϕ ALUM. HANDRAIL
1/8" THICK
P C-10 VERTICAL RAIL POST WITH AF-3 FITTING
5"
1 1/8"
"MILCOR" NO 66 PLASTER
PLASTER
SEE ST'D DETAIL # 48, 50, 50A & 50C
5'-0" MAX. SPACING OF BLOCKS
6"
PC-10
PLASTER
3'-0" TO FIN. FLOOR

·ELEVATION A-A·

·ALUMINUM WALL RAIL BRACKET·
(BLUMCRAFT CO.'S WB-2 & AF-3 FITTING) 3" = 1'-0"

·ELEVATION B-B·

DETAIL OF ALUM. HANDRAIL AND RAILING CAP.
3" = 1'-0"

·ELEVATION C-C·

·PART. PLAN OF STAIRWELL·
·RAILING·

NOTE: VERTICAL POST SUPPORTS & WALL BRACKETS AS MANUFACTURED BY BLUMCRAFT CO. OF 460 MELWOOD ST., PITTSBURGH, PENNA.

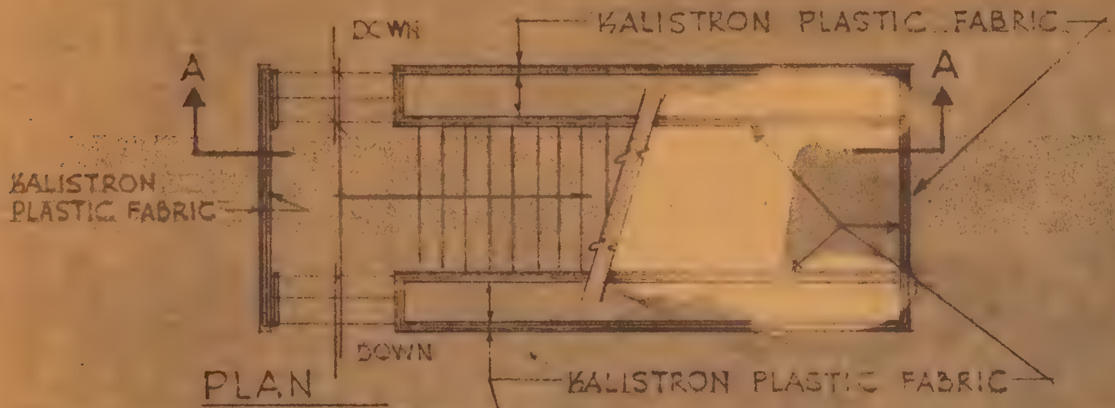
SCALE 1½" = 1'-0"
UNLESS OTHERWISE NOTED.

HANDRAILS FOR· STAIR DETAILS Nº 48, 50, 50A & 50C

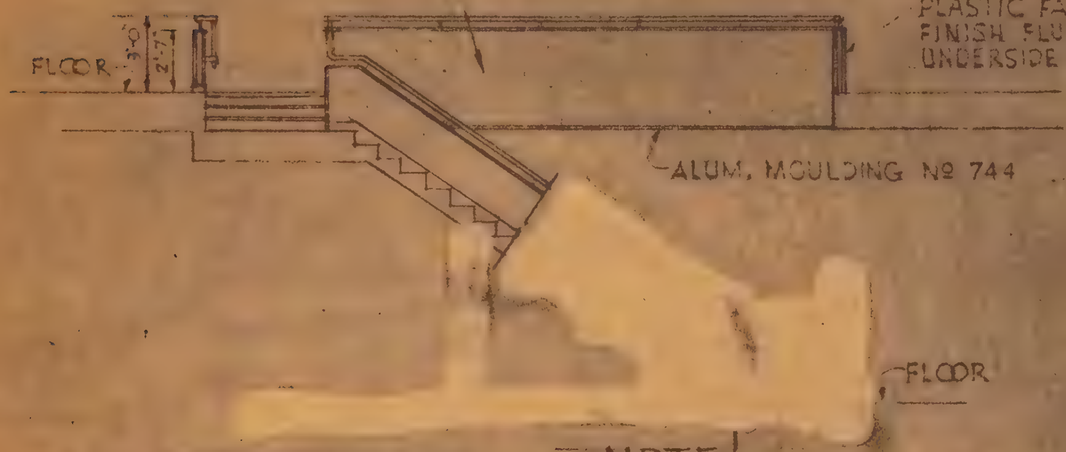
REDRAWN:
BY F.K.K.- 6-14-55
REV. 1-24-56. F.K.K.
REV. 5-21-56. F.K.K.
REV. 5-29-56. F.K.K.
REV. 3-12-57 M.Z.

J. C. PENNEY CO. INC.
·REAL ESTATE DEPARTMENT·
·CONSTRUCTION DIVISION·
330 W. 34TH ST. ·NEW YORK CITY·

DETAIL Nº
48B

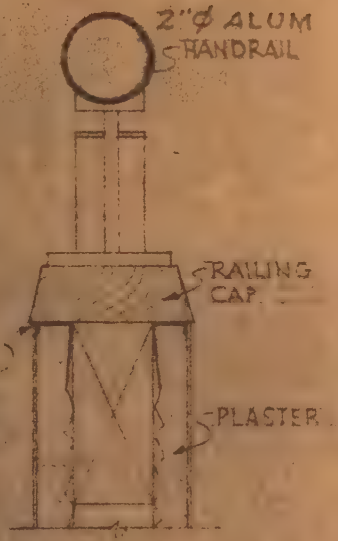

KALISTRON PLASTIC FABRIC
DOWN
A
A
KALISTRON PLASTIC FABRIC
DOWN
KALISTRON PLASTIC FABRIC

PLAN
SCALE 1/8"=1'-0"

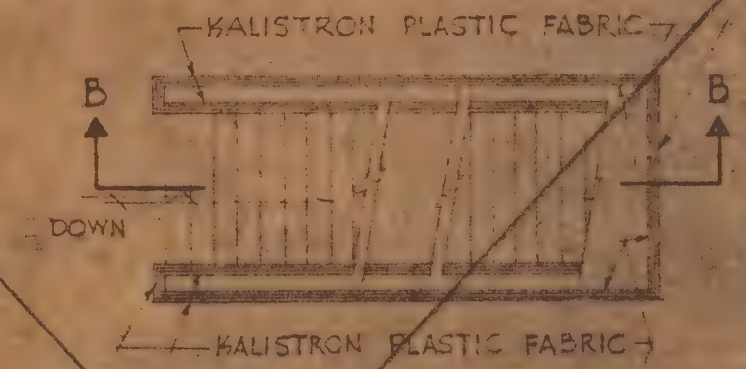

FLOOR
3'-0"
2'-7"
ALUM. MOULDING Nº 744
FLOOR

SECTION A-A
SCALE 1/8"=1'-0"

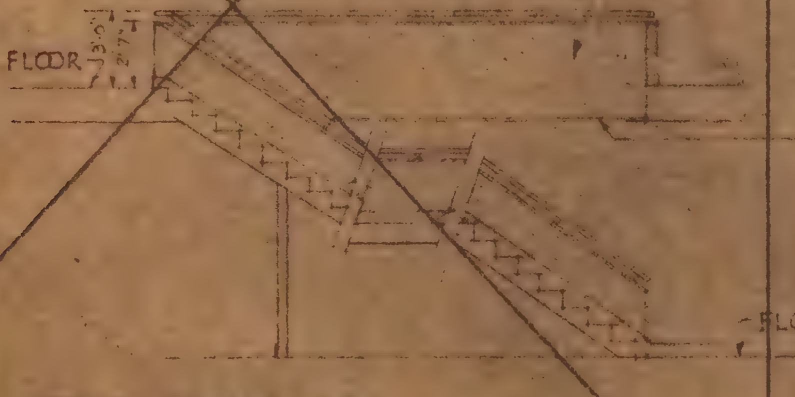
NOTE!
SEE ARCH. DWGS FOR ACTUAL
LAYOUT & DIMENSIONS


2"Ø ALUM HANDRAIL
RAILING CAP
PLASTIC FABRIC TO FINISH FLUSH WITH UNDERSIDE OF CAP.
PLASTER

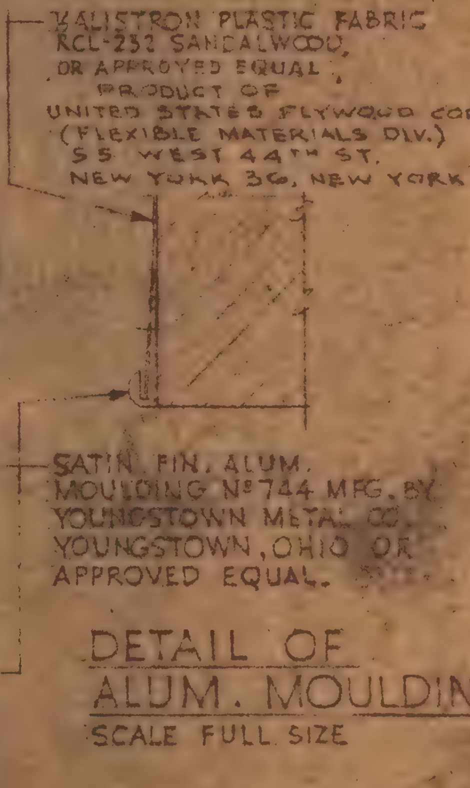
DETAIL OF FABRIC
ON BALUSTRADES
SCALE 3"=1'-0"


KALISTRON PLASTIC FABRIC
B
B
DOWN
KALISTRON PLASTIC FABRIC

PLAN
SCALE 1/8"=1'-0"


FLOOR
3'-0"
2'-7"
FLOOR

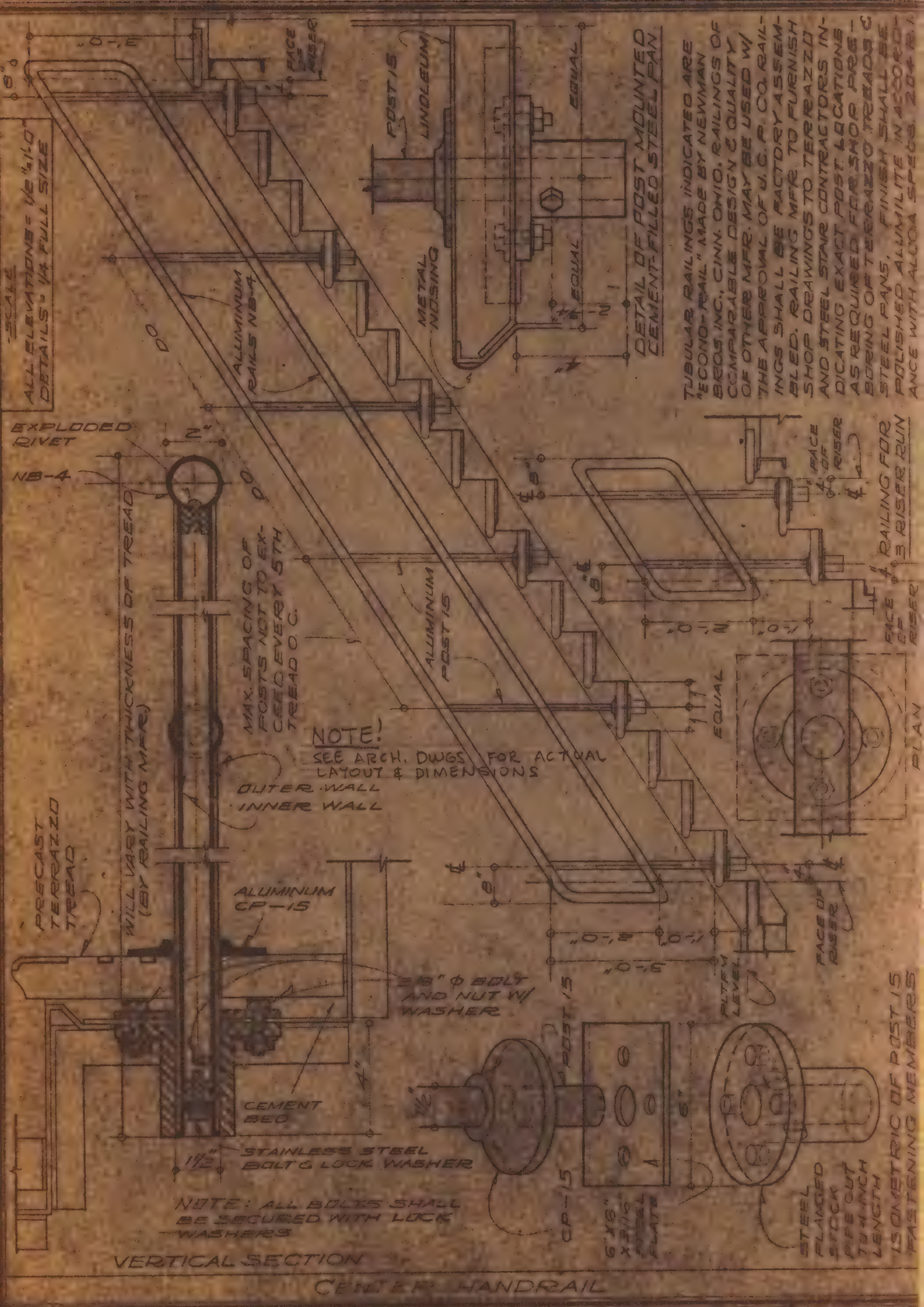
SECTION B-B
SCALE 1/8"=1'-0"


KALISTRON PLASTIC FABRIC
KCL-232 SANDALWOOD,
OR APPROVED EQUAL,
PRODUCT OF
UNITED STATES PLYWOOD CORP.,
(FLEXIBLE MATERIALS DIV.)
55 WEST 44TH ST.
NEW YORK 36, NEW YORK
SATIN FIN. ALUM.
MOULDING Nº 744 MFG. BY
YOUNGSTOWN METAL CO.
YOUNGSTOWN, OHIO OR
APPROVED EQUAL.

DETAIL OF
ALUM. MOULDING
SCALE FULL SIZE

PLASTIC FABRIC STAIR DADO DETAILS

DRAWN BY N-A-D-6-22-56 REV. 9-7-56. F.K.K. REV. 3-12-57 MZ REV. 6-20-58 P.B.W.	J.C. PENNEY CO. INC. REAL ESTATE DEPARTMENT & CONSTRUCTION DIVISION 330 W. 34TH STREET NEW YORK CITY	DETAIL Nº 48 D3


SCALE
ALL ELEVATIONS = 1/2"=1'-0"
DETAILS = 1/4 FULL SIZE
3'-0"
8"
FACE OF RISER
ALUMINUM RAILS NB-4
O.D.
EXPLODED RIVET
2"
NB-4
WILL VARY WITH THICKNESS OF TREAD (BY RAILING MFR.)
MAX. SPACING OF POSTS NOT TO EXCEED EVERY 5TH TREAD O.C.
ALUMINUM POST 15
OUTER WALL
INNER WALL
PRECAST TERRAZZO TREAD
ALUMINUM CP-15
3/8" ϕ BOLT AND NUT W/ WASHER
CEMENT BED
4"
1 1/2"
STAINLESS STEEL BOLT & LOCK WASHER
VERTICAL SECTION
POST 15
LINOLEUM
METAL NOSING
EQUAL
EQUAL
DETAIL OF POST MOUNTED CEMENT-FILLED STEEL PAN
FACE OF RISER
8"
2'-0"
1'-0"
EQUAL
RAILING FOR 3 RISER RUN
FACE OF RISER
PLAN
8"
2'-0"
1'-0"
3'-0"
PLTFM LEVEL
FACE OF RISER
1/2"
POST 15
CP-15
6"x6" x 3/16" STEEL PLATE
6"
STEEL FLANGED STOCK PIPE CUT TO 4-INCH LENGTH
ISOMETRIC OF POST 15 FASTENING MEMBERS

NOTE!
SEE ARCH. DWGS. FOR ACTUAL LAYOUT & DIMENSIONS

NOTE: ALL BOLTS SHALL BE SECURED WITH LOCK WASHERS

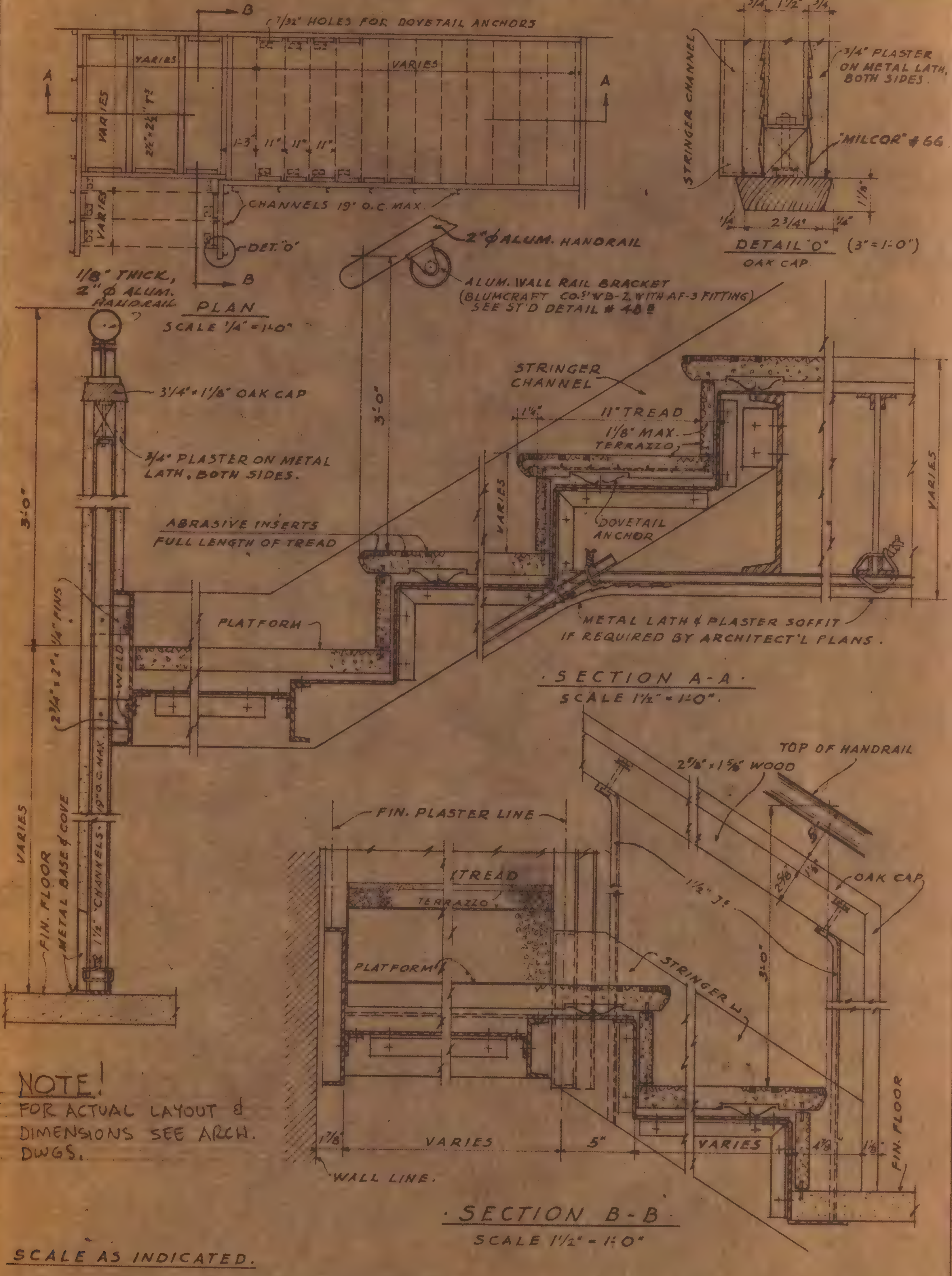
TUBULAR RAILINGS INDICATED ARE "ECONO-RAIL" MADE BY NEWMAN BROS. INC., CINN. OHIO. RAILINGS OF COMPARABLE DESIGN & QUALITY OF OTHER MFR. MAY BE USED W/ THE APPROVAL OF J.C.P. CO. RAILINGS SHALL BE FACTORY ASSEMBLED. RAILING MFR. TO FURNISH SHOP DRAWINGS TO TERRAZZO AND STEEL STAIR CONTRACTORS INDICATING EXACT POST LOCATIONS AS REQUIRED FOR SHOP PRE-BORING OF TERRAZZO TREADS & STEEL PANS. FINISH SHALL BE POLISHED ALUMILITE IN ACCORDANCE WITH ALCOA SPECS. 204 R1.

CENTER HANDRAIL

REDRAWN BY
MAGONE 12/13/5

J.C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34TH ST.
NEW YORK CITY

DETAIL NO.
50B


B
1 7/32" HOLES FOR DOVETAIL ANCHORS
VARIES
VARIES
A
A
VARIES
2½" x 2½" T's
1-3" 11" 11" 11"
VARIES
CHANNELS 19" O.C. MAX.
DET. "O"
B
PLAN
SCALE ¼" = 1'-0"
2" Ø ALUM. HANDRAIL
ALUM. WALL RAIL BRACKET
(BLUMCRAFT CO.'S WB-2, WITH AF-3 FITTING)
SEE ST'D DETAIL # 48 B
3/4" 1½" 3/4"
STRINGER CHANNEL
3/4" PLASTER ON METAL LATH, BOTH SIDES.
"MILCOR" # 66
1⅛"
¼" 2¾" ¼"
DETAIL "O" (3" = 1'-0")
OAK CAP
1/8" THICK, 2" Ø ALUM. HANDRAIL
3'1/4" x 1 1/8" OAK CAP
3/4" PLASTER ON METAL LATH, BOTH SIDES.
3'-0"
3'-0"
ABRASIVE INSERTS FULL LENGTH OF TREAD
2 3/4" x 2" x 1/4" FINS
WELD
PLATFORM
VARIES
FIN. FLOOR
METAL BASE & COVE
1½" CHANNELS 19" O.C. MAX.
STRINGER CHANNEL
1¼"
11" TREAD
1⅛" MAX. TERRAZZO
VARIES
DOVETAIL ANCHOR
VARIES
METAL LATH & PLASTER SOFFIT IF REQUIRED BY ARCHITECT'L PLANS.
· SECTION A-A ·
SCALE 1½" = 1'-0".
TOP OF HANDRAIL
2⅝" x 1⅝" WOOD
FIN. PLASTER LINE
TREAD
TERRAZZO
1½" J's
OAK CAP
2⅝" 1⅛"
PLATFORM
STRINGER
3'-0"
FIN. FLOOR
1⅞" VARIES 5" VARIES 4⅞" 1⅛"
WALL LINE.
· SECTION B-B ·
SCALE 1½" = 1'-0"

NOTE!
FOR ACTUAL LAYOUT & DIMENSIONS SEE ARCH. DWGS.

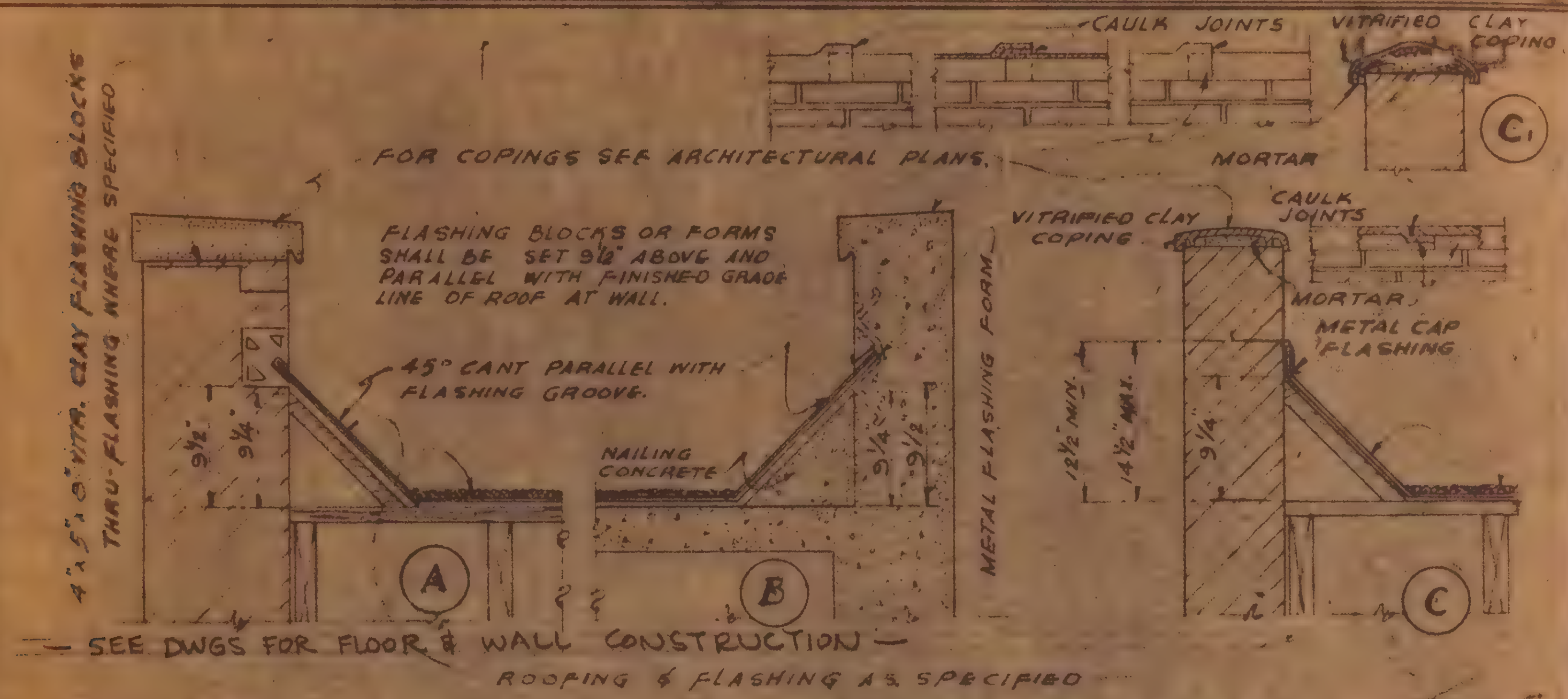
SCALE AS INDICATED.

· STAIR DETAILS ·

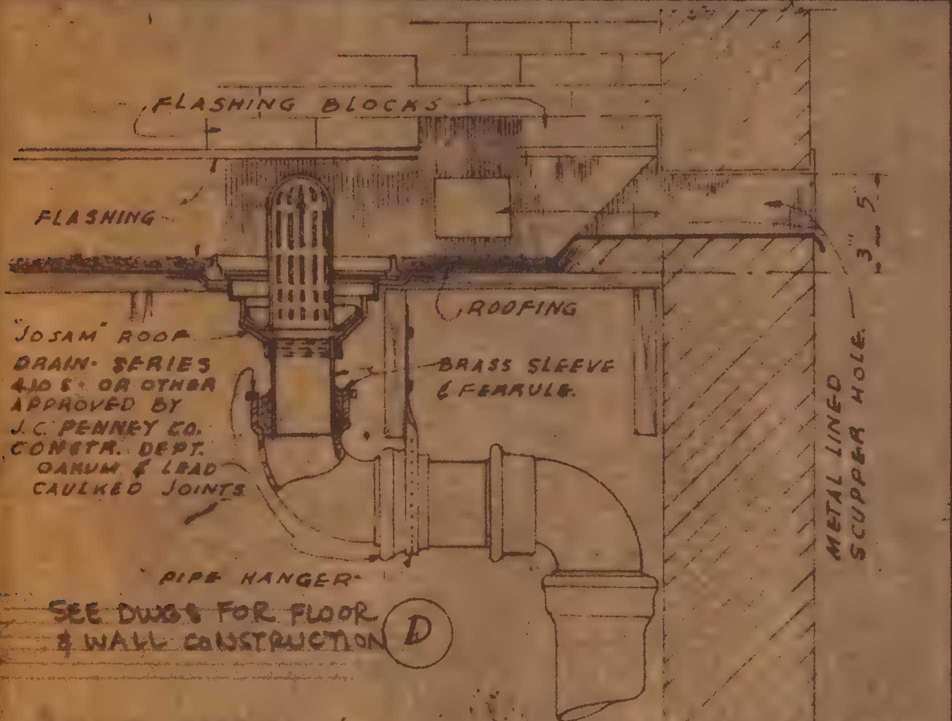
DRAWN:
7-5-55. BY F.K.K.
REV. 7-3-56. F.K.K.
REV. 3-12-57, MAZ.

J. C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT ·
· CONSTRUCTION DIVISION ·
330 W. 34TH ST
NEW YORK CITY

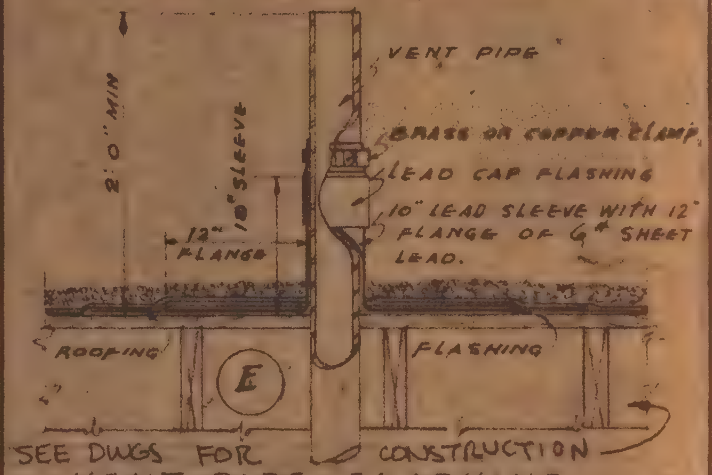
DETAIL No
50C2


4" x 5" x 8" VITR. CLAY FLASHING BLOCKS
THRU-FLASHING WHERE SPECIFIED
FOR COPINGS SEE ARCHITECTURAL PLANS.
CAULK JOINTS
VITRIFIED CLAY COPING
MORTAR
C1
FLASHING BLOCKS OR FORMS SHALL BE SET 9½" ABOVE AND PARALLEL WITH FINISHED GRADE LINE OF ROOF AT WALL.
45° CANT PARALLEL WITH FLASHING GROOVE.
9½
9¼
NAILING CONCRETE
9¼
9½
METAL FLASHING FORM
VITRIFIED CLAY COPING
CAULK JOINTS
MORTAR
METAL CAP FLASHING
12½" MIN.
14½" MAX.
9¼
A
B
C
SEE DWGS FOR FLOOR & WALL CONSTRUCTION
ROOFING & FLASHING AS SPECIFIED

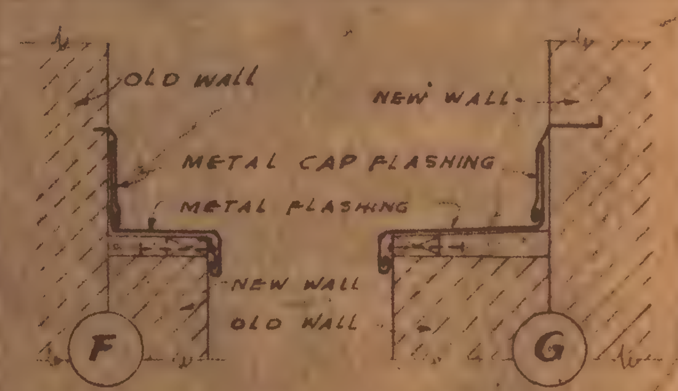
FLASHINGS AT INTERSECTIONS OF WALLS & ROOFS


FLASHING BLOCKS
FLASHING
ROOFING
"JOSAM" ROOF DRAIN- SERIES 410 E - OR OTHER APPROVED BY J.C. PENNEY CO. CONSTR. DEPT.
OAKUM & LEAD CAULKED JOINTS
BRASS SLEEVE & FERRULE
METAL LINED SCUPPER HOLE.
3"
5"
PIPE HANGER
SEE DWGS FOR FLOOR & WALL CONSTRUCTION
D

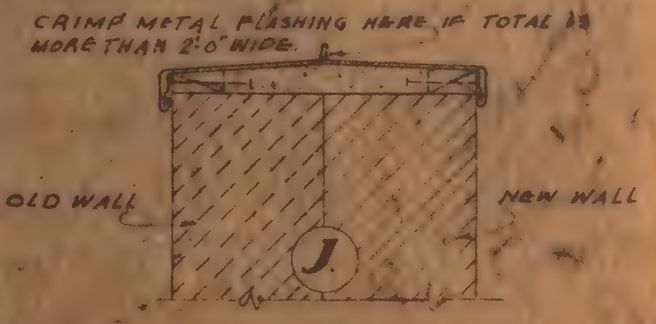
ROOF DRAIN & SCUPPER FLASHING

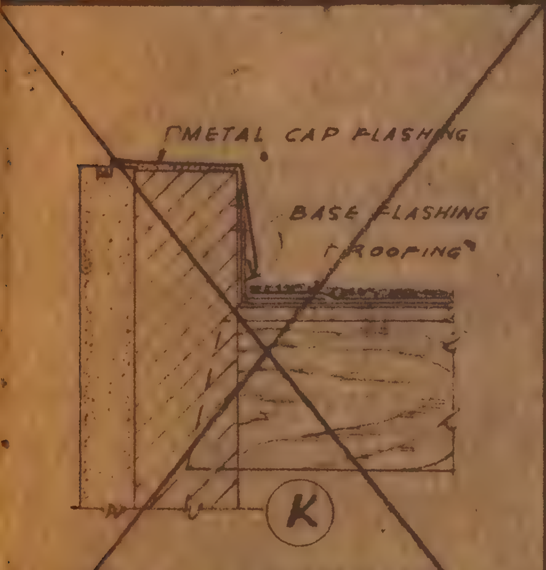

VENT PIPE
BRASS OR COPPER CLAMP
LEAD CAP FLASHING
10" LEAD SLEEVE WITH 12" FLANGE OF 6# SHEET LEAD.
2'-0" MIN
10" SLEEVE
12" FLANGE
ROOFING
FLASHING
E
SEE DWGS FOR CONSTRUCTION

VENT PIPE FLASHING

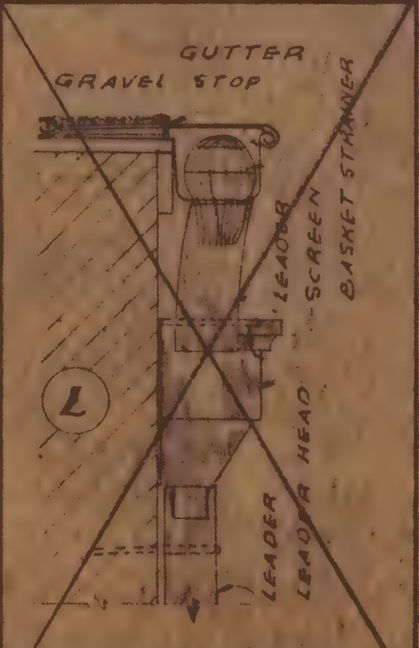

OLD WALL
NEW WALL
METAL CAP FLASHING
METAL FLASHING
NEW WALL
OLD WALL
F
G

CONNECTING OLD & NEW WALLS


CRIMP METAL FLASHING HERE IF TOTAL IS MORE THAN 2'-0" WIDE.
OLD WALL
NEW WALL
J


METAL CAP FLASHING
BASE FLASHING
ROOFING
K

WALL FLASHING


GUTTER
GRAVEL STOP
BASKET STRAINER
SCREEN
LEADER
LEADER HEAD
LEADER
LEADER
L

LEADER HEAD

SCALE 3/4" = 1'-0"

FLASHING DETAILS.

DRAWN BY
R.H.H. 9-2-42
TRACED BY
L.R. 5-8-32
REV. 7-15-53 - NAD

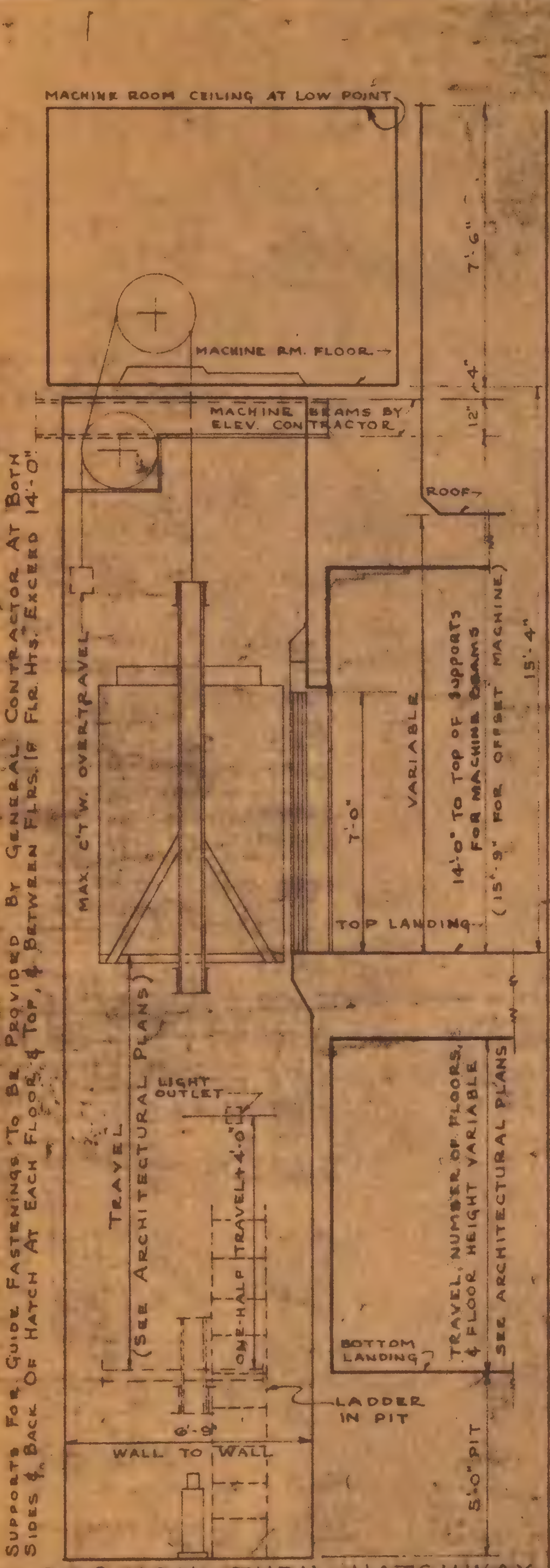
J.C. PENNEY CO. INC.

REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION

330 W. 34TH ST.
NEW YORK CITY.

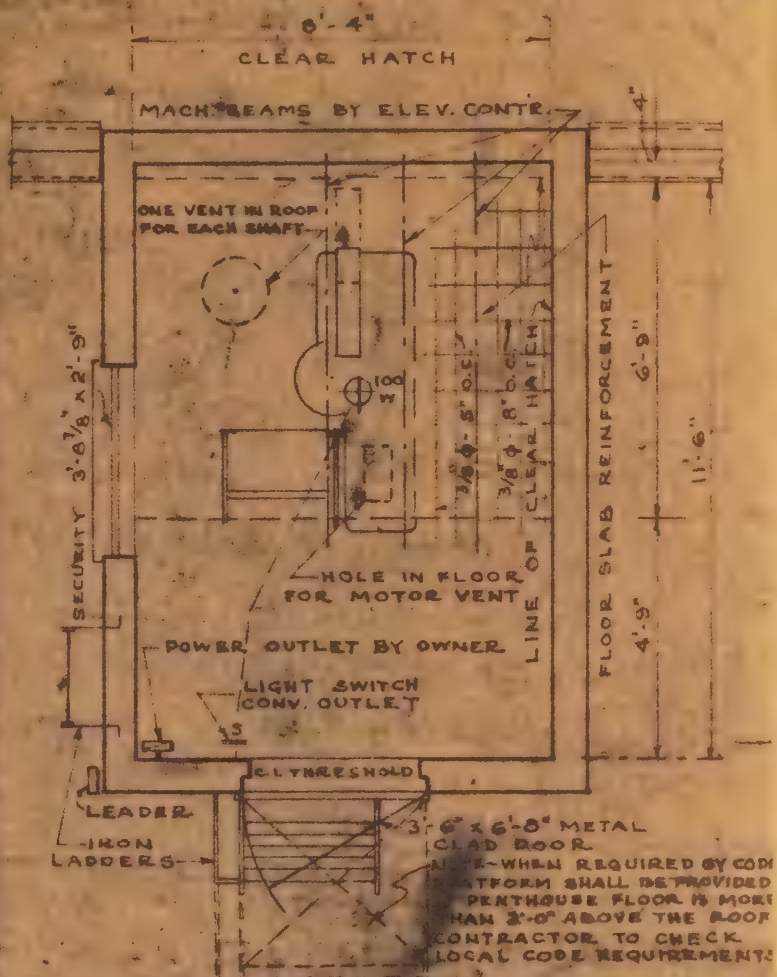
DETAIL No

51


SUPPORTS FOR GUIDE FASTENINGS TO BE PROVIDED BY GENERAL CONTRACTOR AT BOTH SIDES & BACK OF HATCH AT EACH FLOOR & TOP, & BETWEEN FLRS. IF FLR. HTS. EXCEED 14'-0"
MACHINE ROOM CEILING AT LOW POINT
MACHINE RM. FLOOR
MACHINE BEAMS BY ELEV. CONTRACTOR
7'-6"
4"
12"
ROOF
MAX. C'T W. OVERTRAVEL
7'-0"
VARIABLE
14'-0" TO TOP OF SUPPORTS FOR MACHINE BEAMS
(15'-9" FOR OFFSET MACHINE)
15'-4"
TOP LANDING
TRAVEL (SEE ARCHITECTURAL PLANS)
LIGHT OUTLET
TRAVEL + 4'-0"
ONE-HALF TRAVEL
TRAVEL, NUMBER OF FLOORS, & FLOOR HEIGHT VARIABLE
SEE ARCHITECTURAL PLANS
BOTTOM LANDING
LADDER IN PIT
6'-9"
WALL TO WALL
5'-0" PIT

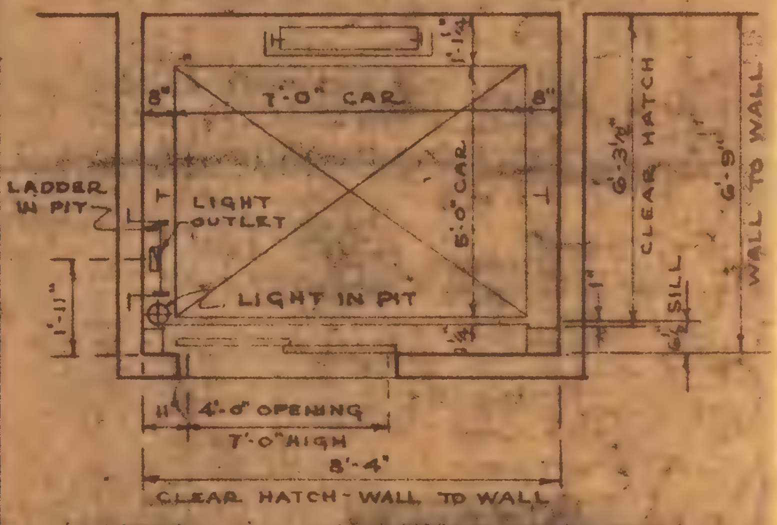
SECTION THRU HATCHWAY

NOTE ~ GENERAL CONTRACTOR SHALL GUARANTEE BY SIGNATURE ON FINAL APPROVED ELEVATOR SHOP DRAWINGS THE HOISTWAY SIZES AND TRAVEL TO WITHIN 1" OF FIGURES SHOWN.


8'-4"
CLEAR HATCH
MACH. BEAMS BY ELEV. CONTR.
4"
ONE VENT IN ROOF FOR EACH SHAFT
100 W
3/8 Φ 5" O.C.
3/8 Φ 8" O.C.
LINE OF CLEAR HATCH
FLOOR SLAB REINFORCEMENT
6'-9"
11'-6"
4'-9"
SECURITY 3'-8 1/8 x 2'-9"
HOLE IN FLOOR FOR MOTOR VENT
POWER OUTLET BY OWNER
LIGHT SWITCH CONV. OUTLET
S
C.L. THRESHOLD
LEADER
IRON LADDERS
3'-6" x 6'-8" METAL CLAD DOOR
NOTE—WHEN REQUIRED BY CODE PLATFORM SHALL BE PROVIDED IF PENTHOUSE FLOOR IS MORE THAN 2'-0" ABOVE THE ROOF CONTRACTOR TO CHECK LOCAL CODE REQUIREMENTS

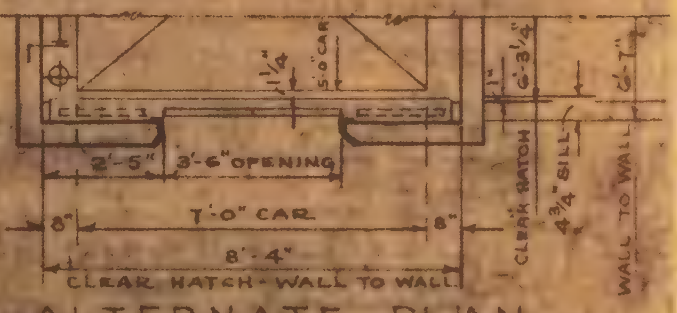
PLAN OF MACHINE ROOM

NOTE ~ FOR VARIABLE DIMENSIONS, LOCATION OF WINDOW, DOOR, LADDERS, ETC., SIZES OF BEAMS, AND WALL TO WALL HATCH CLEARANCES SEE ARCHITECTURAL PLANS AND ELEVATOR SHOP DRAWINGS.
FOR SETTING OF DOOR FRAME IN WALL SEE PLAN, STD. DETAIL # 55B.


1'-1 1/4"
8"
7'-0" CAR
8"
LADDER IN PIT
LIGHT OUTLET
5'-0" CAR
LIGHT IN PIT
1'-11"
6'-3 1/2"
CLEAR HATCH
1"
SILL
6'-9"
WALL TO WALL
11 1/4
4'-0" OPENING
7'-0" HIGH
8'-4"
CLEAR HATCH - WALL TO WALL

PLAN OF ELEVATOR HATCH

NOTE ~ FOR EACH ADDITIONAL CAB, INCREASE THE WIDTH OF HATCH 8'-4" + 4".


1 1/4
5'-0" CAR
2'-5"
3'-6" OPENING
8"
7'-0" CAR
8"
8'-4"
CLEAR HATCH - WALL TO WALL
1"
6'-3 1/4
CLEAR HATCH
4 3/4" SILL
6'-7"
WALL TO WALL

ALTERNATE PLAN

SCALE 1/4" = 1'-0"

PASSENGER ELEVATOR DETAILS

CAPACITY
2500 # AT 200 F.P.M.

DRAWN BY:
S.J.C. 2-20-41
REV. W.R.T. 2-10-48
REV. W.R.T. 2-23-50
REV. L.R. 6-1-50
REV. 9-15-53 N.A.D.

J. C. PENNEY CO. INC.
· REAL ESTATE · DEPARTMENT ·
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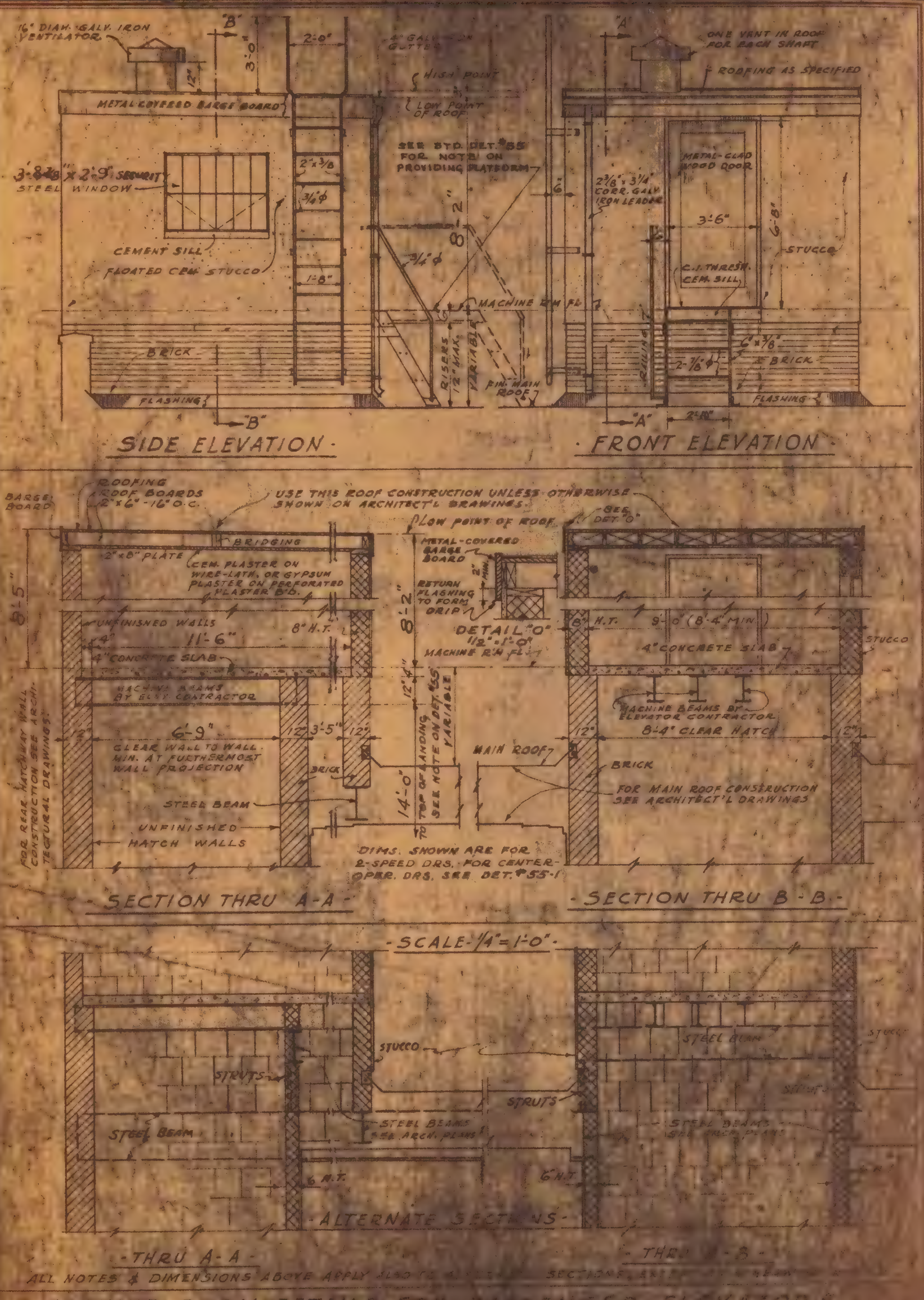
DETAIL NO.
55 A


16" DIAM. GALV. IRON VENTILATOR
"B"
3'-0"
12"
2'-0"
4" GALV. IRON GUTTER
HIGH POINT
LOW POINT OF ROOF
METAL-COVERED BARGE BOARD
3'-8⅞" x 2'-9" SECURITY STEEL WINDOW
2" x ⅜
¾"φ
SEE STD. DET. #55 FOR NOTE ON PROVIDING PLATFORM
8'-2"
¾"φ
CEMENT SILL
FLOATED CEM. STUCCO
1'-8"
MACHINE R.M. FL.
RISERS 12" MAX.
VARIABLE
FIN. MAIN ROOF
BRICK
FLASHING
"B"
SIDE ELEVATION
"A"
ONE VENT IN ROOF FOR EACH SHAFT
ROOFING AS SPECIFIED
6"
2⅜" x 3¼" CORR. GALV. IRON LEADER
METAL-CLAD WOOD DOOR
3'-6"
6'-8"
STUCCO
C.I. THRESH.
CEM. SILL
RAILING
6" x ⅜"
2-⅞"φ
BRICK
FLASHING
"A"
2'-10"
FRONT ELEVATION
BARGE BOARD
ROOFING
ROOF BOARDS 2" x 6" - 16" O.C.
USE THIS ROOF CONSTRUCTION UNLESS OTHERWISE SHOWN ON ARCHITECT'L DRAWINGS
LOW POINT OF ROOF
SEE DET. "O"
BRIDGING
2" x 8" PLATE
CEM. PLASTER ON WIRE-LATH, OR GYPSUM PLASTER ON PERFORATED PLASTER B'D.
8'-5"
UNFINISHED WALLS
4"
11'-6"
8" H.T.
4" CONCRETE SLAB
MACHINE BEAMS BY ELEV. CONTRACTOR
12"
6'-9"
CLEAR WALL TO WALL MIN. AT FURTHERMOST WALL PROJECTION
12"
3'-5"
12"
BRICK
STEEL BEAM
UNFINISHED HATCH WALLS
FOR REAR HATCHWAY WALL CONSTRUCTION SEE ARCHITECTURAL DRAWINGS
METAL-COVERED BARGE BOARD
2" MIN.
RETURN FLASHING TO FORM DRIP
DETAIL "O"
1½" = 1'-0"
MACHINE R.M. FL.
8'-2"
12'-4"
14'-0" TO TOP OF LANDING
SEE NOTE ON DET. "55"
VARIABLE
MAIN ROOF
DIMS. SHOWN ARE FOR 2-SPEED DRS. FOR CENTER-OPER. DRS. SEE DET. #55-1
SECTION THRU A-A
8" H.T.
9'-0" (8'-4" MIN.)
4" CONCRETE SLAB
STUCCO
MACHINE BEAMS BY ELEVATOR CONTRACTOR
12"
8'-4" CLEAR HATCH
12"
BRICK
FOR MAIN ROOF CONSTRUCTION SEE ARCHITECT'L DRAWINGS
SECTION THRU B-B
SCALE 1/4" = 1'-0"
STUCCO
STRUTS
STEEL BEAM
STEEL BEAMS SEE ARCH. PLANS
6" H.T.
STRUTS
6" H.T.
STEEL BEAM
STRUTS
STEEL BEAMS SEE ARCH. PLANS
STUCCO
ALTERNATE SECTIONS
THRU A-A
THRU B-B

ALL NOTES & DIMENSIONS ABOVE APPLY ALSO TO ALTERNATE SECTIONS, EXCEPT AS SHOWN

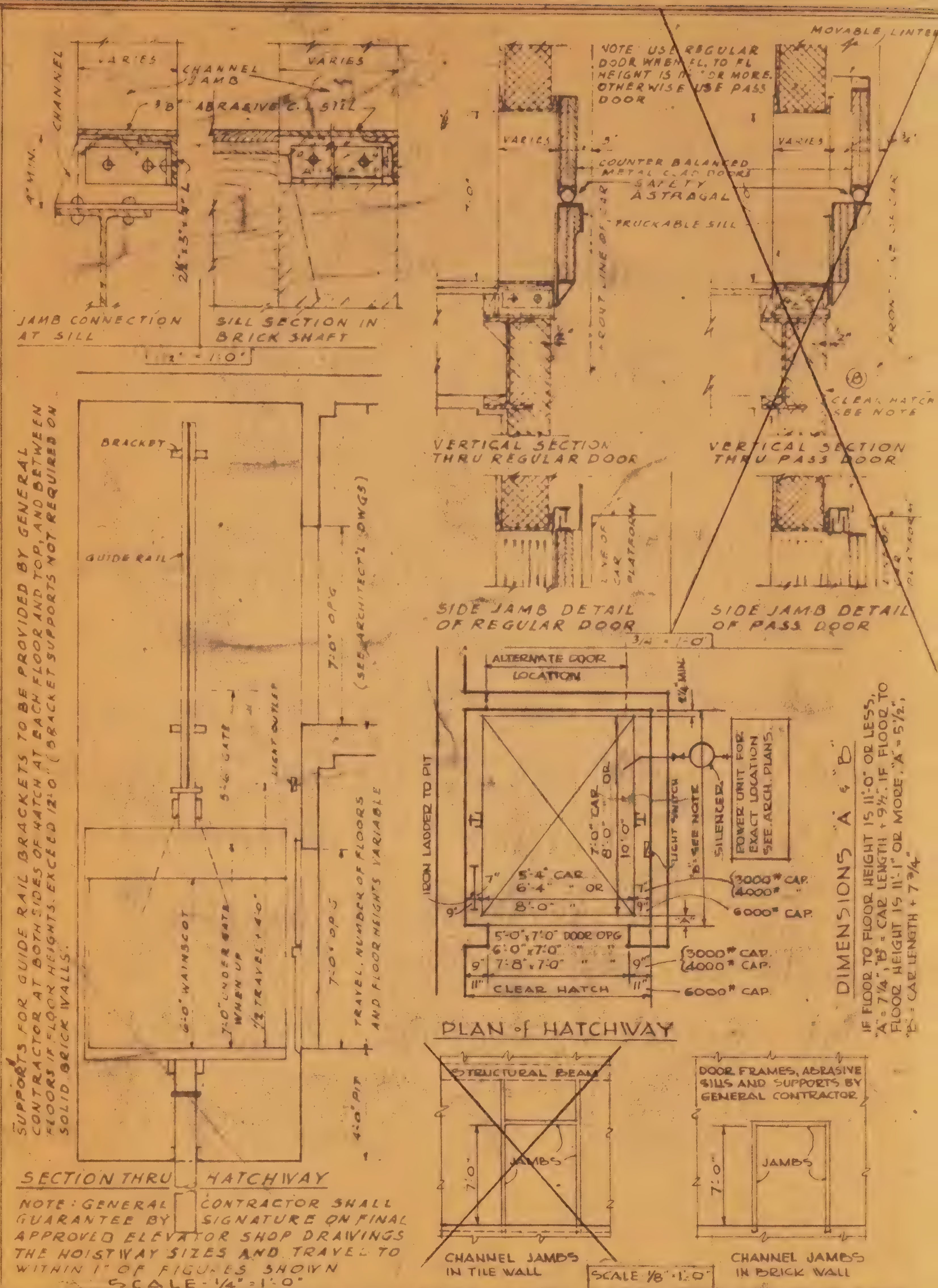
MACHINE ROOM DETAILS FOR PASSENGER ELEVATORS

DRAWN BY:

TRACED BY:
F.K.K. 8/26/42
R.H.L. [illegible]
[illegible]

J.C. PENNEY CO. INC.
REAL ESTATE [illegible]
CONSTRUCTION [illegible]
330 W. 34th ST. [illegible] CITY

DETAIL
55


CHANNEL
4" MIN.
VARIES
CHANNEL JAMB
3/8"
ABRASIVE C.I. SILL
VARIES
2½"×3½"×5/16" L
JAMB CONNECTION AT SILL
SILL SECTION IN BRICK SHAFT
1½" = 1'-0"
VARIES
3"
7'-0"
COUNTER BALANCED METAL CLAD DOORS
SAFETY ASTRAGAL
TRUCKABLE SILL
FRONT LINE OF CAR
VERTICAL SECTION THRU REGULAR DOOR
MOVABLE LINTEL
VARIES
3/4"
FRONT LINE OF CAR
⑧
CLEAR HATCH SEE NOTE
~~VERTICAL SECTION THRU PASS DOOR~~
LINE OF CAR PLATFORM
SIDE JAMB DETAIL OF REGULAR DOOR
LINE OF CAR PLATFORM
~~SIDE JAMB DETAIL OF PASS DOOR~~
3/4" = 1'-0"
BRACKET
GUIDE RAIL
5'-6" GATE
LIGHT OUTLET
7'-0" OPG
(SEE ARCHITECT'L DWGS)
6'-0" WAINSCOT
7'-0" UNDER GATE WHEN UP
½ TRAVEL + 4'-0"
7'-0" OPG
TRAVEL, NUMBER OF FLOORS AND FLOOR HEIGHTS VARIABLE
4'-0" PIT
SECTION THRU HATCHWAY
ALTERNATE DOOR LOCATION
6½" MIN.
IRON LADDER TO PIT
7'-0" CAR
8'-0" OR
10'-0"
LIGHT SWITCH
"B" SEE NOTE
SILENCER
POWER UNIT FOR EXACT LOCATION SEE ARCH. PLANS.
7"
5'-4" CAR
6'-4" " OR
8'-0" "
7"
9"
9"
"A"
3000# CAP.
4000# "
6000# CAP.
5'-0"×7'-0" DOOR OPG
6'-0"×7'-0" " "
7'-8"×7'-0" " "
9"
9"
3000# CAP.
4000# CAP.
11"
CLEAR HATCH
11"
6000# CAP.
PLAN of HATCHWAY
~~STRUCTURAL BEAM~~
7'-0"
JAMBS
CHANNEL JAMBS IN TILE WALL
SCALE 1/8" = 1'-0"
DOOR FRAMES, ABRASIVE SILLS AND SUPPORTS BY GENERAL CONTRACTOR
7'-0"
JAMBS
CHANNEL JAMBS IN BRICK WALL

NOTE: USE REGULAR DOOR WHEN FL. TO FL HEIGHT IS 11'-1" OR MORE. OTHERWISE USE PASS DOOR

SUPPORTS FOR GUIDE RAIL BRACKETS TO BE PROVIDED BY GENERAL CONTRACTOR AT BOTH SIDES OF HATCH AT EACH FLOOR AND TOP, AND BETWEEN FLOORS IF FLOOR HEIGHTS EXCEED 12'-0" (BRACKET SUPPORTS NOT REQUIRED ON SOLID BRICK WALLS.

NOTE: GENERAL CONTRACTOR SHALL GUARANTEE BY SIGNATURE ON FINAL APPROVED ELEVATOR SHOP DRAWINGS THE HOISTWAY SIZES AND TRAVEL TO WITHIN 1" OF FIGURES SHOWN

SCALE - 1/4" = 1'-0"

DIMENSIONS "A" & "B"

IF FLOOR TO FLOOR HEIGHT IS 11'-0" OR LESS, "A" = 7¼", "B" = CAR LENGTH + 9½". IF FLOOR TO FLOOR HEIGHT IS 11'-1" OR MORE, "A" = 5½", "B" = CAR LENGTH + 7¾"

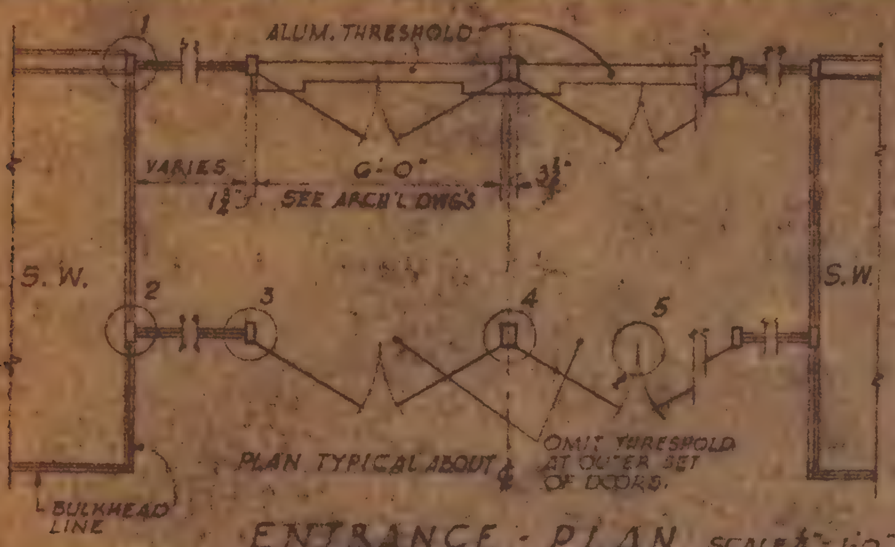
OILDRAULIC FREIGHT ELEV.	PUSH BUTTON CONTROL SELF LEVELING - LEVELING AND RELEVELING	3000# CAPACITY - 5'-4"×7'-0" - 50 F.P.M. APPROXIMATE AVERAGE SPEED 4000# " 6'-4"×8'-0" - 65 " " " " 6000# " 8'-0"×10'-0" - 75 " " " "

DRAWN BY:
F.A.K. 12-30-53
REV. 2-12-54 KFS
REV. 6-10-59 S.M.

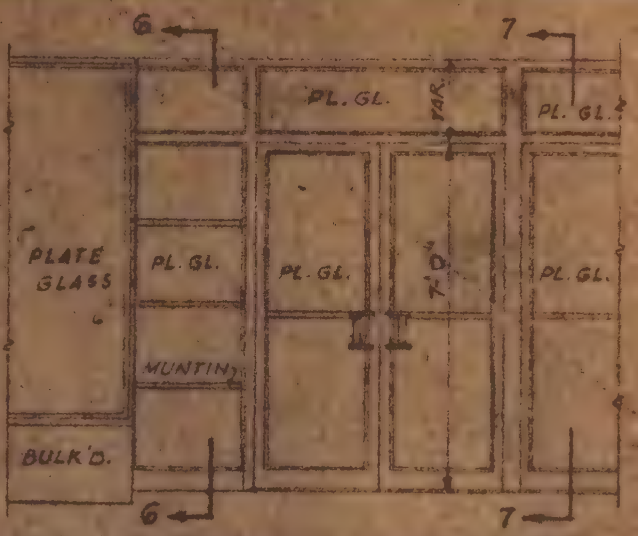
J. C. PENNEY CO. INC.

REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34TH ST. NEW YORK CITY

DETAIL No.
57½


ALUM. THRESHOLD
1
2
3
4
5
VARIES
6'-0"
SEE ARCH'L DWGS
S.W.
S.W.
PLAN TYPICAL ABOUT ℄
OMIT THRESHOLD AT OUTER SET OF DOORS.
BULKHEAD LINE

ENTRANCE - PLAN SCALE ¼" = 1'-0"

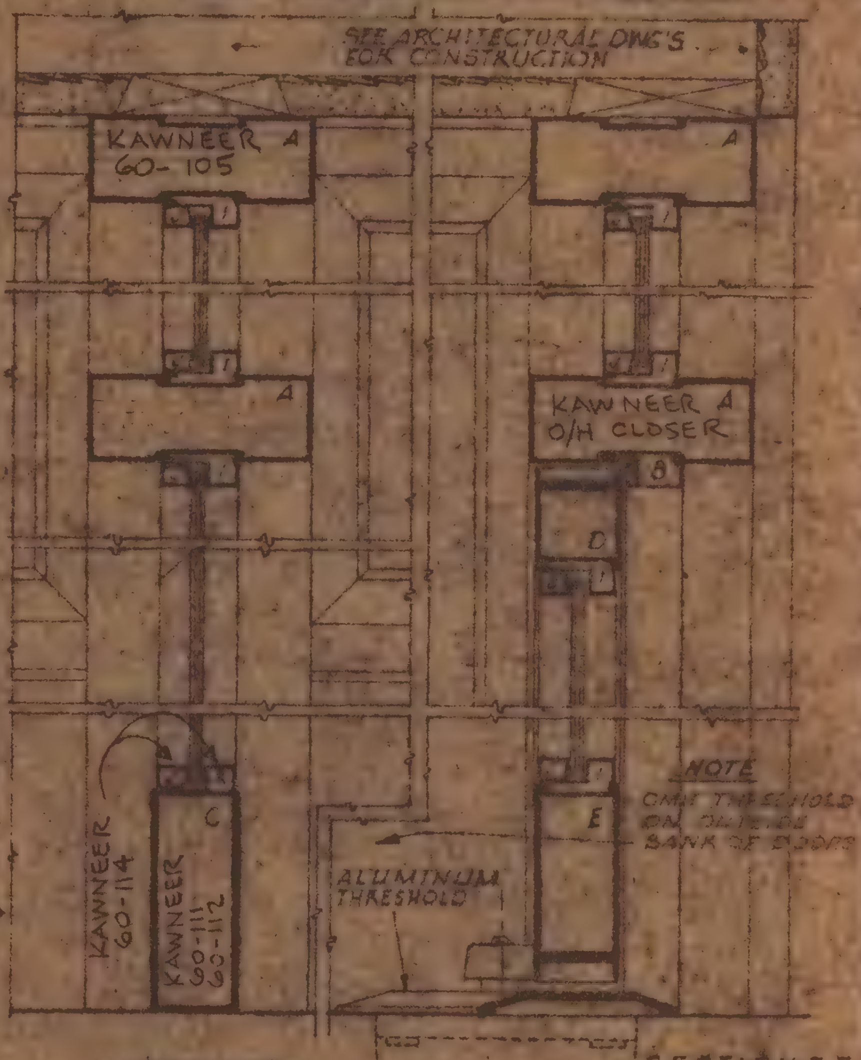

6
7
PL. GL.
PL. GL.
PLATE GLASS
PL. GL.
PL. GL.
PL. GL.
MUNTIN
BULK'D.
7'-0"
6
7

EXTERIOR ELEVATION

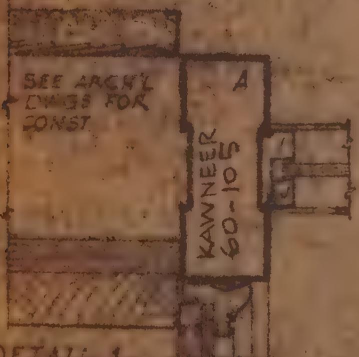
	·PITTCO·	·KAWNEER·	·BRASCO·
A	400-39	53-804, 5, 6, 9; T3P	5345, 5356
B	400-40		
C	400-41	53-939 - 53-940 53-938	5395 5352
D	400-52		5353
E	400-53		5352
F	400-55	W 607 DP	5349
G	400-56		5354
H	400-57		5355
I	400-37		
J	400-10		5350
K	400-11		
L	400-20 400-21	16-401	157
M	53	16-410	56
N	400-231	T5P	5437

PROVIDE "ADAMS-RITE" MAX. SECURITY LOCKS.
GJ-4 (HERCULES) DOOR-HOLDER ON EACH DOOR.
DOOR & FRAME ASSEMBLIES SHALL BE FACTORY PRE-FITTED.

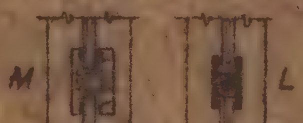
SECTION 6-6 →


SEE ARCHITECTURAL DWG'S FOR CONSTRUCTION
KAWNEER A 60-105
A
A
KAWNEER A O/H CLOSER
B
D
KAWNEER 60-114
C
KAWNEER 60-111 60-112
E
ALUMINUM THRESHOLD
NOTE
OMIT THRESHOLD ON OUTSIDE BANK OF DOORS
CEMENT CASE

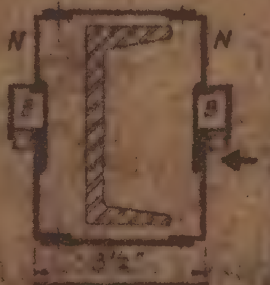
SECTION 7-7


SEE ARCH'L DWGS FOR CONST.
A
KAWNEER 60-105

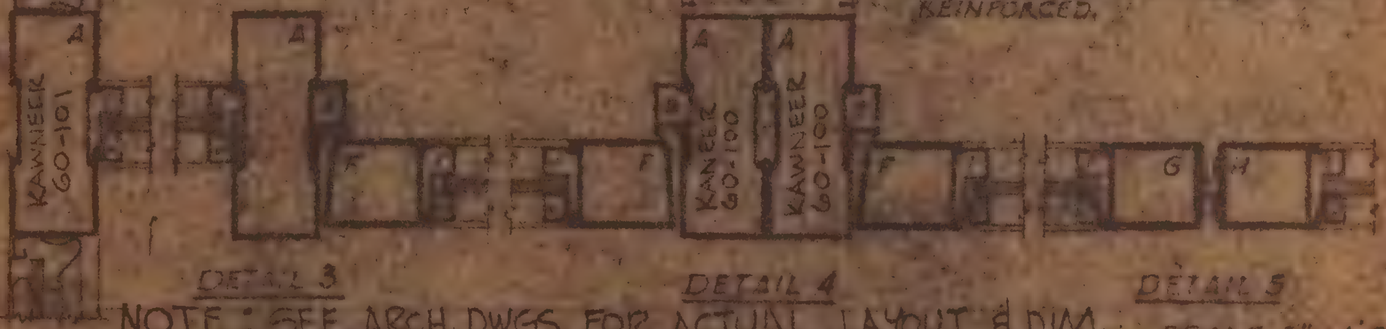
DETAIL 1



SIDELIGHT MUNTIN
USE "L" WHEN WIDTH IS LESS THEN 3'-0" - USE "M" IF 3'-0" OR GREATER.



DETAIL 4a
NOTE: WHEN TOTAL HEIGHT, DOOR & TRANSOM, IS 9'-6" OR OVER, USE SCHEDULE "N" WITH COVERPLATES, REINFORCED.


A
KAWNEER 60-101
A
F
F
A
A
KAWNEER 60-100
KAWNEER 60-100
F
G
H

DETAIL 2

DETAIL 3

DETAIL 4

DETAIL 5

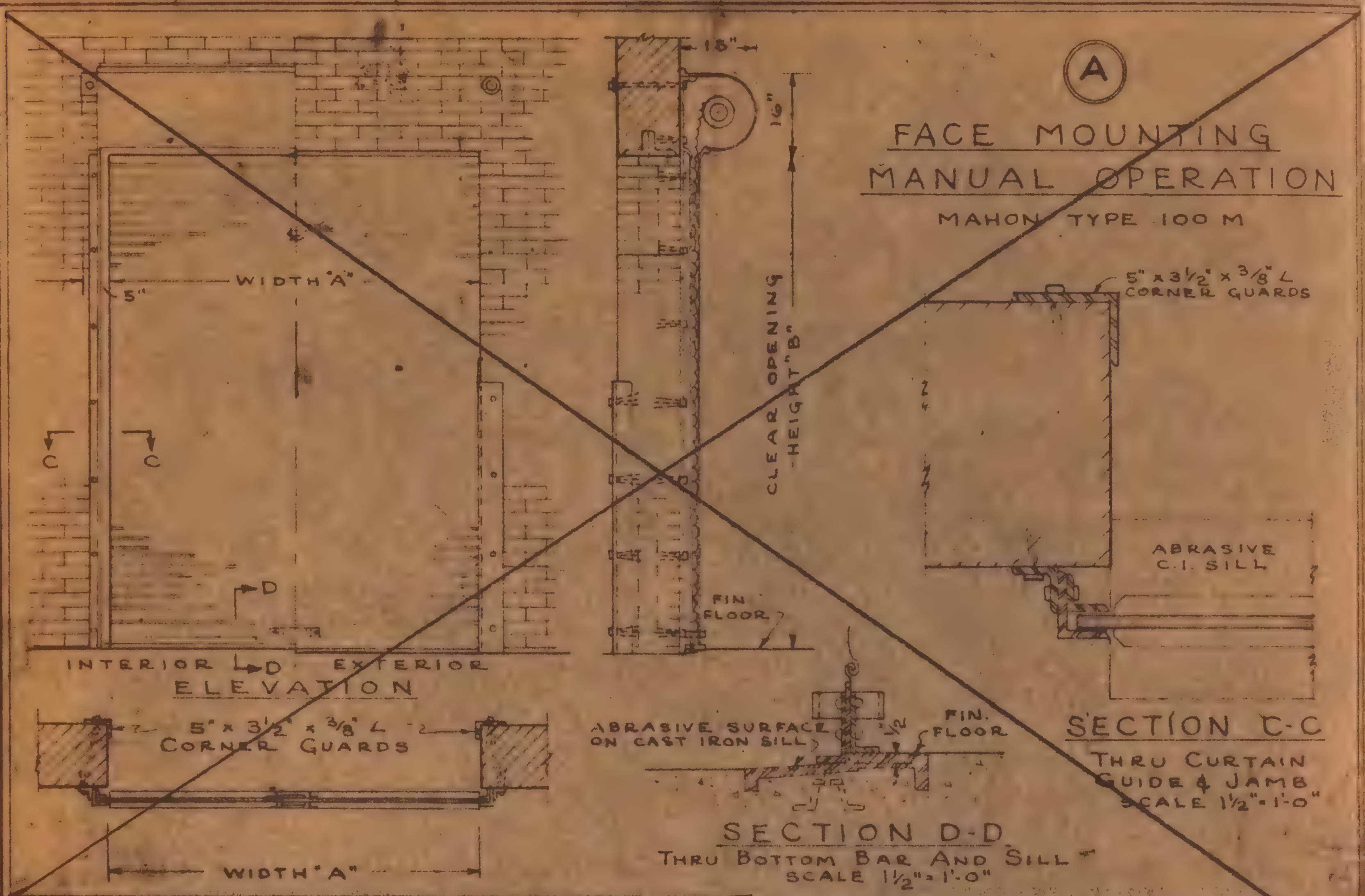
NOTE: SEE ARCH. DWGS FOR ACTUAL LAYOUT & DIM. SCALE 3" = 1'-0"

·SINGLE ACTING ENTRANCE DOORS·

DRAWN BY:
.S.K. 8-7-56
.R.
.V. 5-21-58 CAR
.V 5-7-63 RFS

J.C. PENNEY CO. INC.
·REAL ESTATE DEPARTMENT·
·CONSTRUCTION DIVISION·
330 W. 34TH ST. NEW YORK CITY.

DETAIL No.
63 B7



FACE MOUNTING MANUAL OPERATION

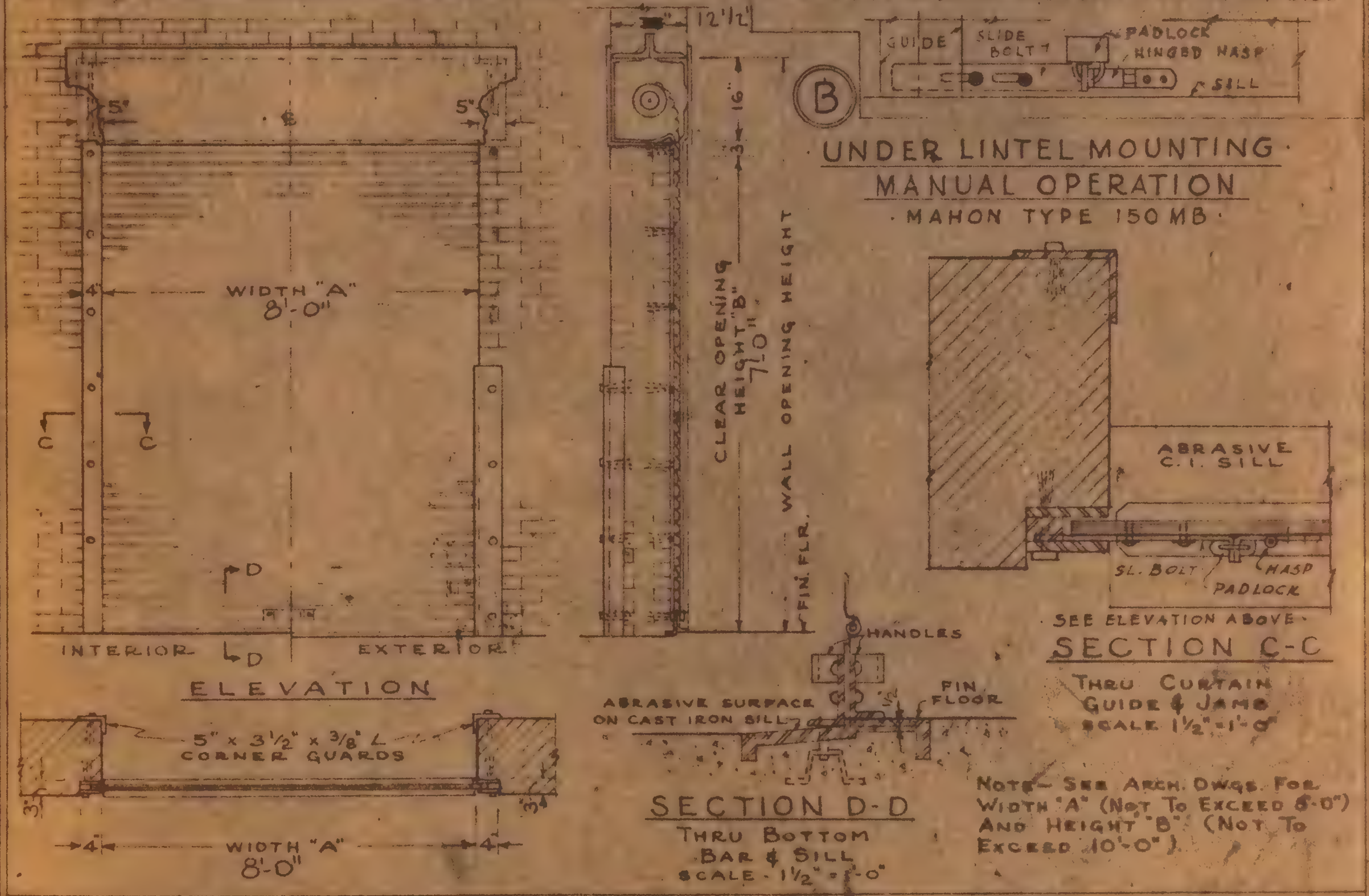
MAHON TYPE 100 M

A
18"
16"
WIDTH "A"
5"
C C
D
CLEAR OPENING HEIGHT "B"
FIN. FLOOR
INTERIOR
D
EXTERIOR
ELEVATION
5" x 3 1/2" x 3/8" ∠ CORNER GUARDS
WIDTH "A"
ABRASIVE SURFACE ON CAST IRON SILL
FIN. FLOOR
SECTION D-D
THRU BOTTOM BAR AND SILL
SCALE 1 1/2" = 1'-0"
5" x 3 1/2" x 3/8" ∠ CORNER GUARDS
ABRASIVE C.I. SILL
SECTION C-C
THRU CURTAIN GUIDE & JAMB
SCALE 1 1/2" = 1'-0"

NOTE ~ DETAILS SHOW DOORS BY THE R. C. MAHON CO. DETROIT, MICH. SIMILAR EQUIVALENT DOORS BY OTHER MANUFACTURERS MAY BE USED ACCORDING TO THE MANUFACTURER'S DIRECTIONS.

NOTE ~ SEE ARCH. DWGS. FOR WIDTH "A" (NOT TO EXCEED 8'-0") & HEIGHT "B" (NOT TO EXCEED 10'-0").

NOTE: PROVIDE SLIDE BOLT, HINGED HASP & PADLOCK ON ONE SIDE OF DOOR. SLIDE BOLT ONLY ON OPP. SIDE.



UNDER LINTEL MOUNTING MANUAL OPERATION

MAHON TYPE 150 MB

GUIDE
SLIDE BOLT
PADLOCK
HINGED HASP
SILL
B
12 1/2"
16"
5"
5"
WIDTH "A"
8'-0"
4"
C C
D
CLEAR OPENING HEIGHT "B" 7'-0"
WALL OPENING HEIGHT
FIN. FLR.
INTERIOR
D
EXTERIOR
ELEVATION
5" x 3 1/2" x 3/8" ∠ CORNER GUARDS
3"
3"
4
WIDTH "A"
8'-0"
4
HANDLES
ABRASIVE SURFACE ON CAST IRON SILL
FIN. FLOOR
SECTION D-D
THRU BOTTOM BAR & SILL
SCALE - 1 1/2" = 1'-0"
ABRASIVE C.I. SILL
SL. BOLT
HASP
PADLOCK
SEE ELEVATION ABOVE
SECTION C-C
THRU CURTAIN GUIDE & JAMB
SCALE 1 1/2" = 1'-0"

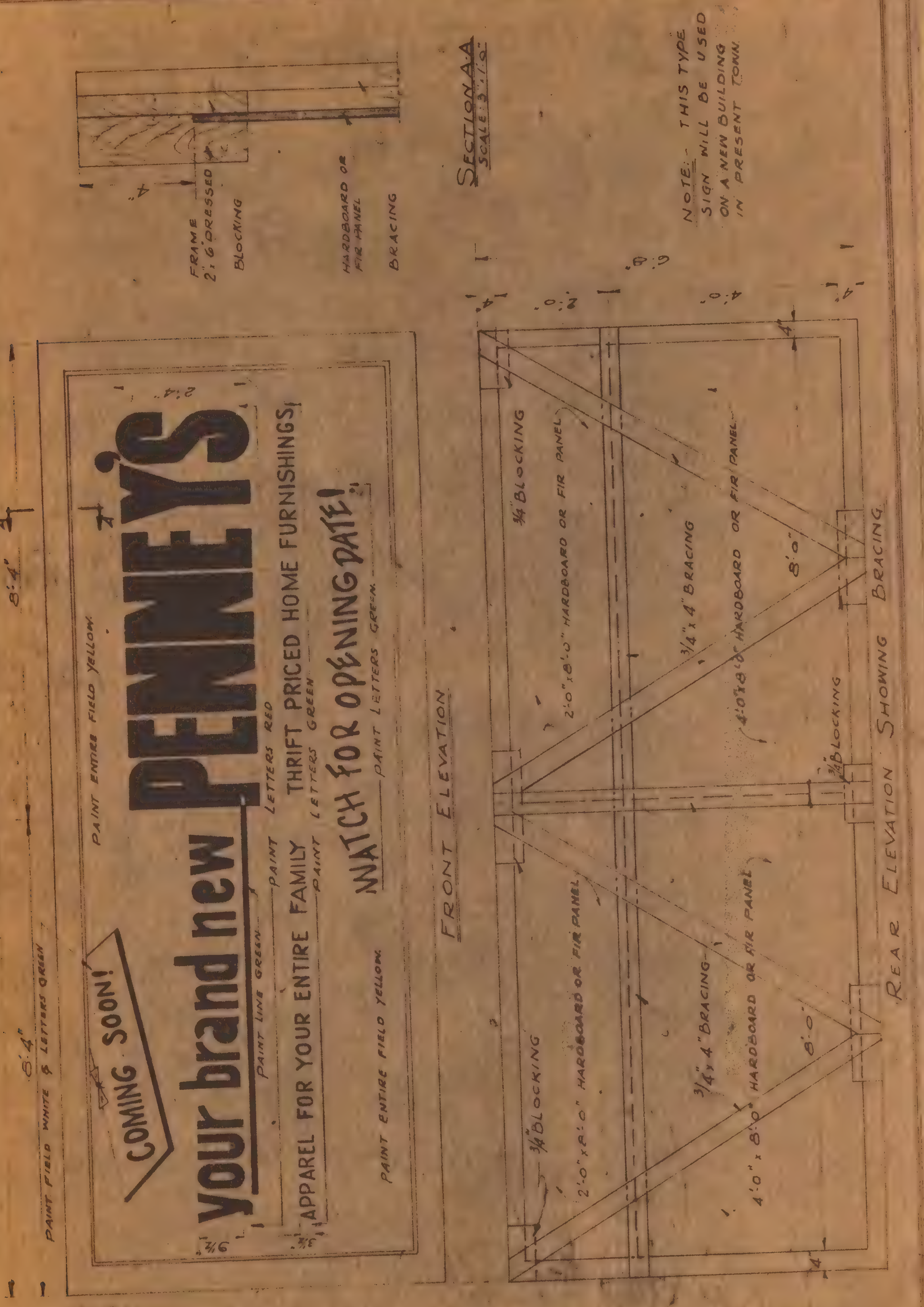
NOTE ~ SEE ARCH. DWGS. FOR WIDTH "A" (NOT TO EXCEED 8'-0") AND HEIGHT "B" (NOT TO EXCEED 10'-0").

STEEL FREIGHT DOORS ~ ROLLING

DRAWN BY:
R.H.L. 2-24-47
REV. EHK 8-5-48
REV. 9-15-53 NAL
REV. 3-8-54 F.K.K.

J.C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34th ST. NEW YORK CITY

DETAIL NO.
65²


COMING SOON!
your brand new PENNEY'S
APPAREL FOR YOUR ENTIRE FAMILY THRIFT PRICED HOME FURNISHINGS;
WATCH FOR OPENING DATE!
PAINT FIELD WHITE & LETTERS GREEN
PAINT ENTIRE FIELD YELLOW
PAINT LINE GREEN
PAINT LETTERS RED
PAINT LETTERS GREEN
PAINT LETTERS GREEN
PAINT ENTIRE FIELD YELLOW
16'-8"
8'-4"
8'-4"
2'-4"
3/6
3/6
FRONT ELEVATION
REAR ELEVATION SHOWING BRACING
3/4" BLOCKING
2'-0" x 8'-0" HARDBOARD OR FIR PANEL
3/4" x 4" BRACING
4'-0" x 8'-0" HARDBOARD OR FIR PANEL
8'-0"
2'-0"
4'-0"
6'-8"
4"
FRAME 2" x 6" DRESSED
BLOCKING
HARDBOARD OR FIR PANEL
BRACING
SECTION A-A
SCALE: 3"=1'-0"
NOTE:- THIS TYPE SIGN WILL BE USED ON A NEW BUILDING IN PRESENT TOWN.

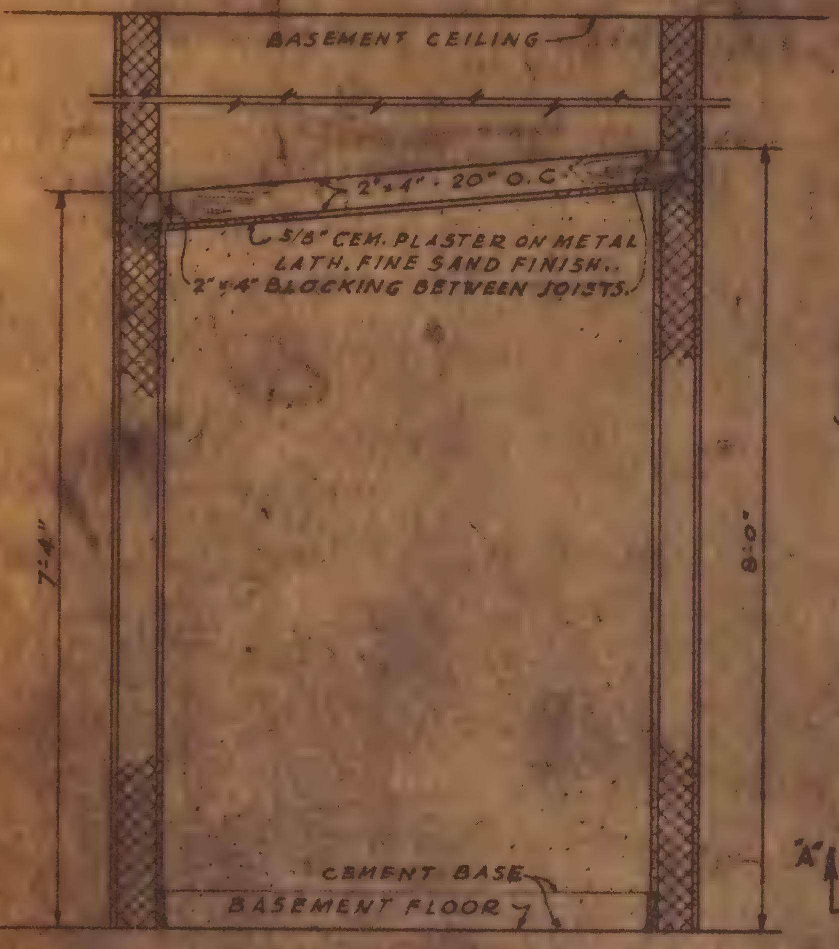
SIGN
NEW BUILDING
(PRESENT TOWN)

SCALE: 1/2"=1'-0"

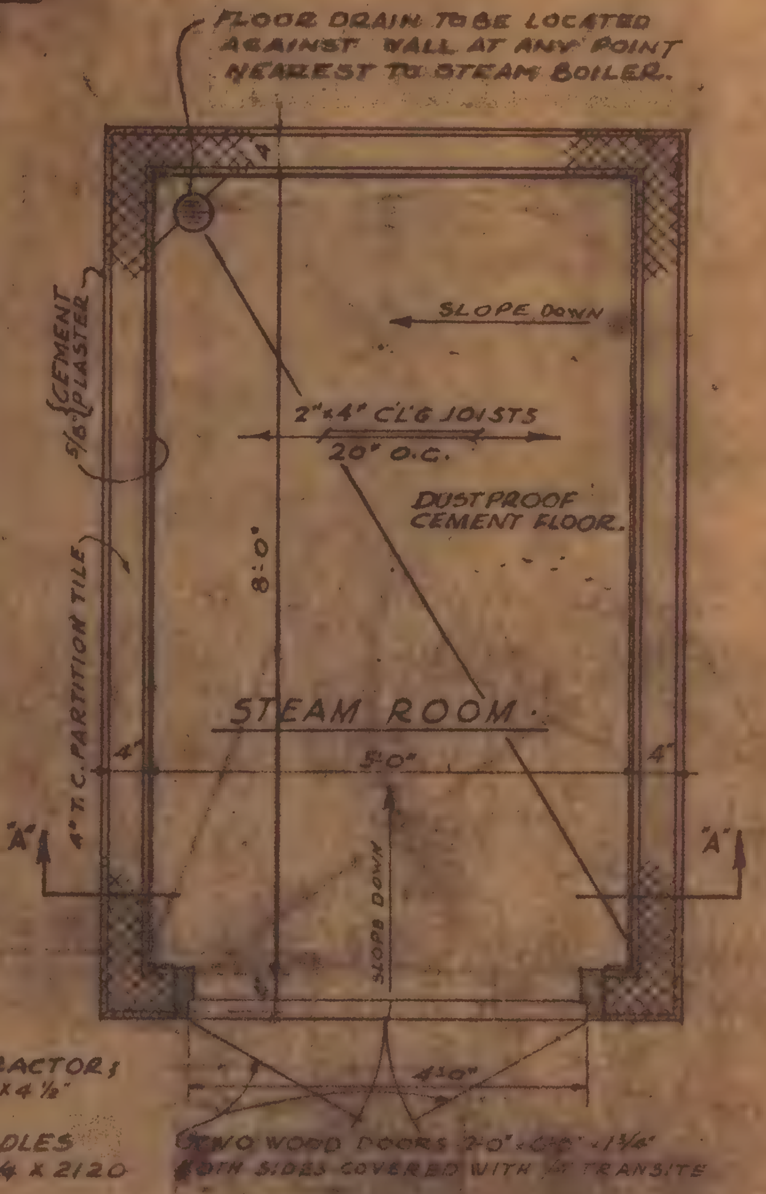
DRAWN BY
L.R. 10-18-51
REV. 4-15-53 NAD
REV. BY L.R. 10-29-53

J.C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34TH ST NEW YORK CITY

DETAIL NO
66A3


BASEMENT CEILING
2"x4" - 20" O.C.
5/8" CEM. PLASTER ON METAL LATH, FINE SAND FINISH..
2"x4" BLOCKING BETWEEN JOISTS.
7'-4"
8'-0"
CEMENT BASE
BASEMENT FLOOR

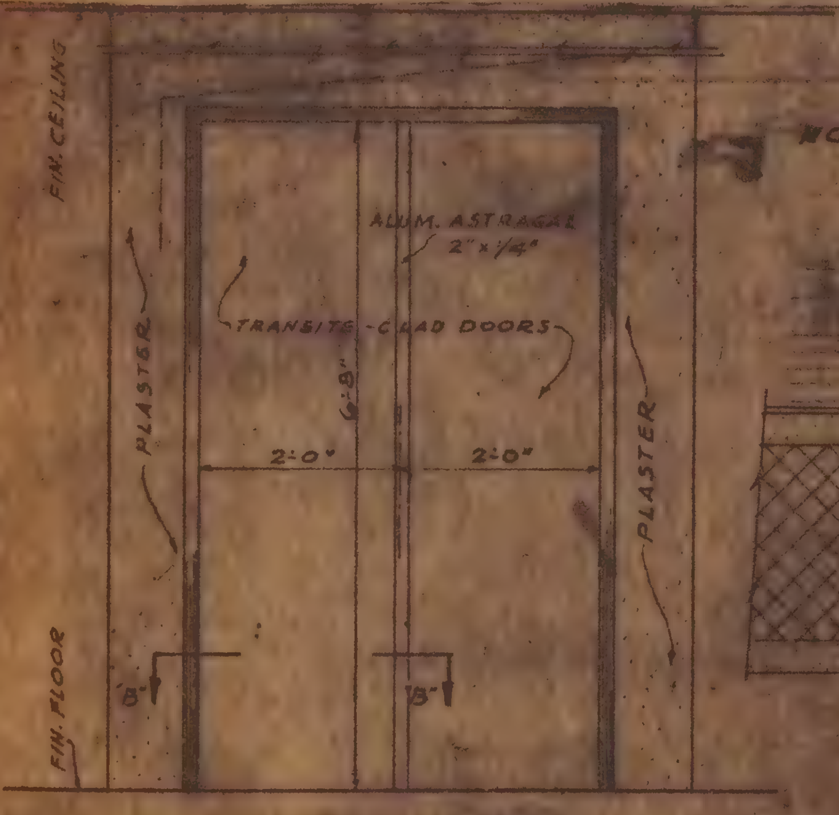
·SECTION A-A·


FLOOR DRAIN TO BE LOCATED AGAINST WALL AT ANY POINT NEAREST TO STEAM BOILER.
5/8" CEMENT PLASTER
SLOPE DOWN
2"x4" CL'G JOISTS
20" O.C.
DUSTPROOF CEMENT FLOOR.
8'-0"
4" T.C. PARTITION TILE
STEAM ROOM·
4"
5'-0"
4"
"A"
"A"
SLOPE DOWN
4'-0"
TWO WOOD DOORS 2'-0" x 6'-8" x 1 3/4"
BOTH SIDES COVERED WITH 1/4" TRANSITE

·PLAN VIEW·

HARDWARE:

TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR;
3 PAIR FULL SURFACE STANLEY HINGES SIZE 4½" x 4½" NO. BBK 131;
1-ONLY MORTISE KNOB LATCH WITH LEVER HANDLES AND BUILT IN SPRING ROSES, CORBIN NO. 90 34 x 2120 (TWO) x 1106 (TWO) x DB;
2-FLUSH BOLTS CORBIN # DL 2876.

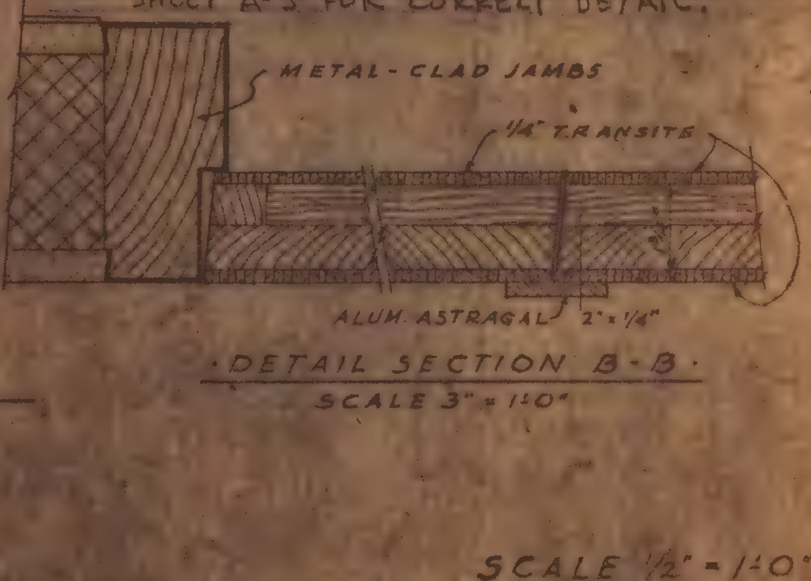

FIN. CEILING
ALUM. ASTRAGAL 2" x 1/4"
TRANSITE-CLAD DOORS
6'-8"
PLASTER
PLASTER
2'-0"
2'-0"
"B"
"B"
FIN. FLOOR

·ELEVATION·

NOTE: FOR PIPING CONNECTIONS SEE .DETAIL M-27/.

DO NOT PAINT INTERIOR.

NOTE:
SEE ARCH. DWGS FOR ACTUAL LAYOUT & DIMEN. SEE HEAD & JAMB DETAIL # ① ON SHEET A-3 FOR CORRECT DETAIL.


METAL-CLAD JAMBS
1/4" TRANSITE
ALUM. ASTRAGAL 2" x 1/4"

·DETAIL SECTION B-B·
SCALE 3" = 1'-0"

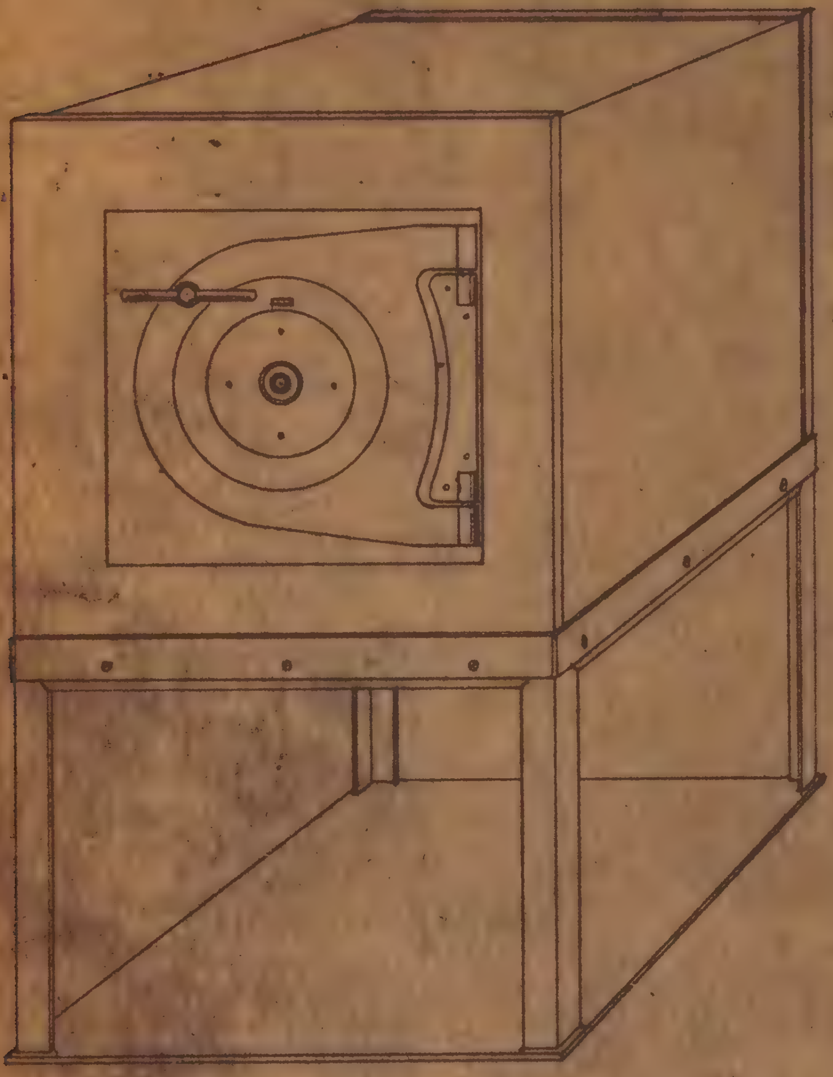
SCALE 1/2" = 1'-0"

·STEAM ROOM·

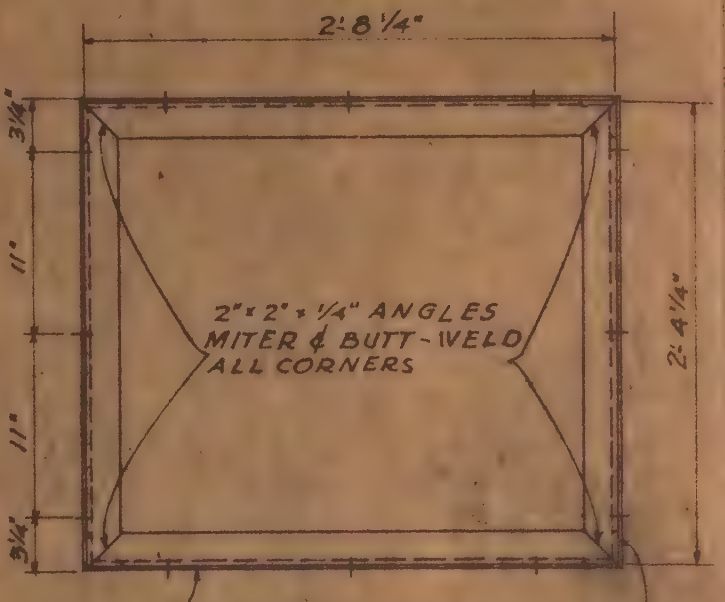
REDRAWN BY:
F.K.K. 11-30-54
REV. 12-13-54 F.K.K.
REV. 9-9-55 F.K.K.
REV. 10-19-55 F.K.K.
REV. 4-10-56 F.K.K.
REV. 10-25-56 F.K.

J. C. PENNEY CO. INC.
·REAL ESTATE DEPARTMENT·
·CONSTRUCTION DIVISION·
330 W. 34TH ST. ·NEW YORK CITY·

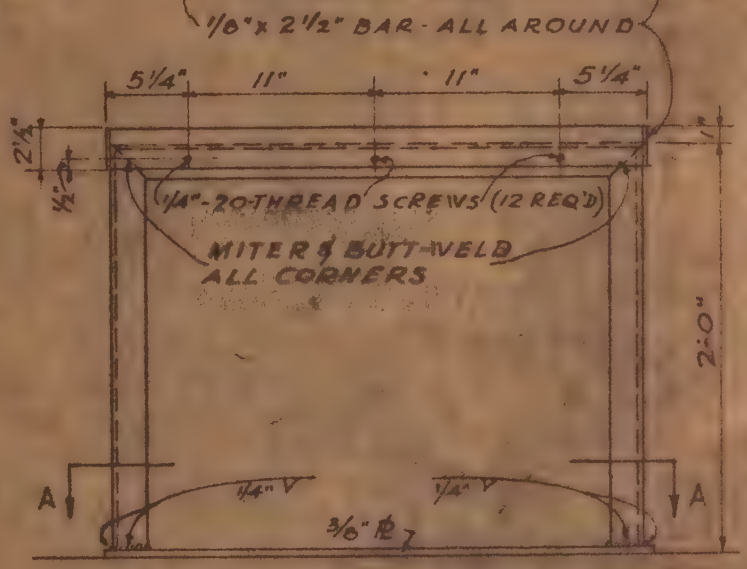
DETAIL Nº
75-11



·PERSPECTIVE·


2'-8 1/4"
3 1/4"
11"
11"
3 1/4"
2'-4 1/4"
2" x 2" x 1/4" ANGLES
MITER & BUTT-WELD
ALL CORNERS

·TOP VIEW·

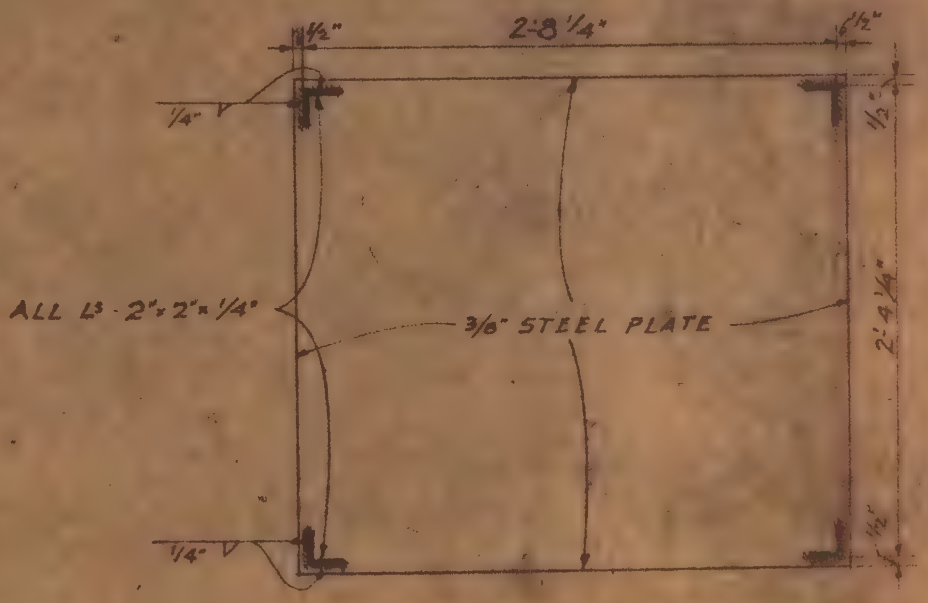

1/8" x 2 1/2" BAR - ALL AROUND
5 1/4"
11"
11"
5 1/4"
2 1/2"
1/2"
1"
1/4"-20-THREAD SCREWS (12 REQ'D)
MITER & BUTT-WELD
ALL CORNERS
2'-0"
1/4" V
1/4" V
3/8" ℔
A
A

·ELEVATION·

WEIGHT OF SAFE = 2600#
WEIGHT OF BASE = 175#
TOTAL = 2775#

SAFE AND BASE AS MANUFACTURED BY THE:—
MOSLER SAFE CO. HAMILTON, OHIO.

THIS EQUIPMENT IS INTENDED FOR USE IN BOTH OLD AND NEW BUILDINGS, AND SHALL BE FURNISHED AND INSTALLED BY THE J.C. PENNEY CO. IN THE EXACT LOCATION INDICATED ON PLANS. THE FLOOR CONSTRUCTION AT THIS LOCATION SHALL BE DESIGNED TO SUPPORT THE TOTAL LOAD.


1/2"
2'-8 1/4"
1/2"
1/4" V
1/2"
ALL L³ · 2" x 2" x 1/4"
3/8" STEEL PLATE
2'-4 1/4"
1/2"
1/4" V

·PLAN SECTION ·A-A·

·SCALE 1" = 1'-0"·

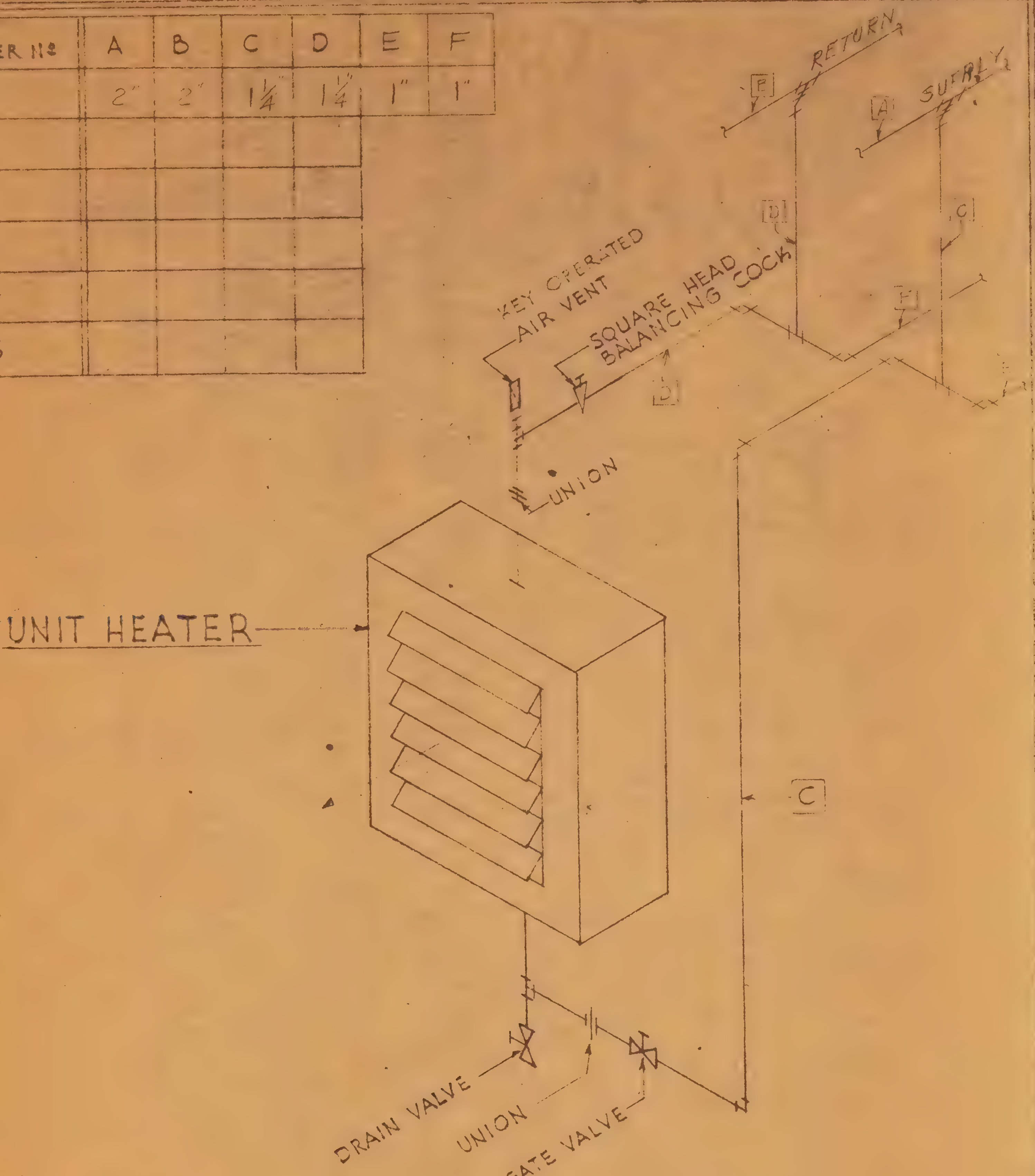
CONNECTION DETAILS OF SUPPORT FOR # 6E/CB4 SAFE

DRAWN BY:
F.K.K. 2-8-55.
REV. 2-28-56. F.K.K.

J.C. PENNEY CO. INC.
·REAL ESTATE DEPARTMENT·
·CONSTRUCTION DIVISION·
330 W. 34TH ST · NEW YORK CITY·

DETAIL Nº 76

UNIT HEATER No	A	B	C	D	E	F
1	2"	2"	1¼"	1¼"	1"	1"
2						
3						
4						
5						
6						


RETURN
SUPPLY
E
A
D
C
F
KEY OPERATED AIR VENT
SQUARE HEAD BALANCING COCK
D
UNION
UNIT HEATER
C
DRAIN VALVE
UNION
GATE VALVE

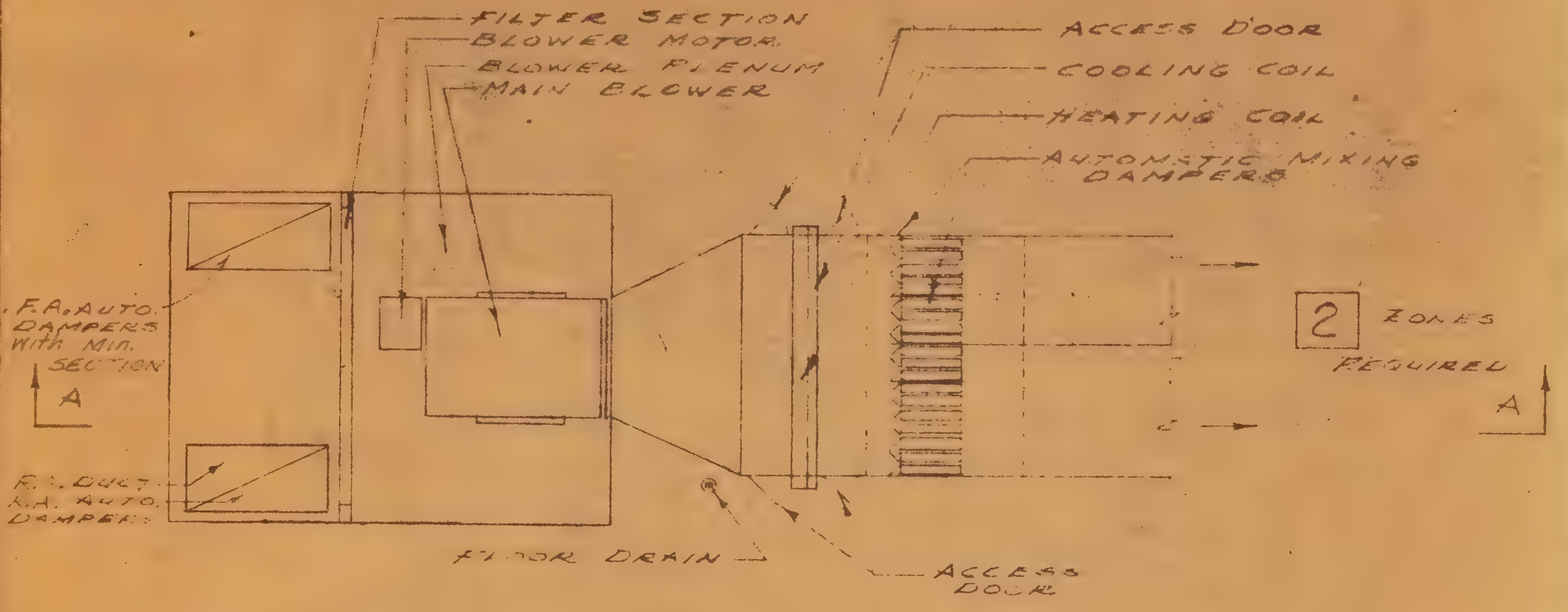
STORE ATHENS, GA. No 570

SCHEMATIC OF UNIT HEATER PIPING FOR HOT WATER

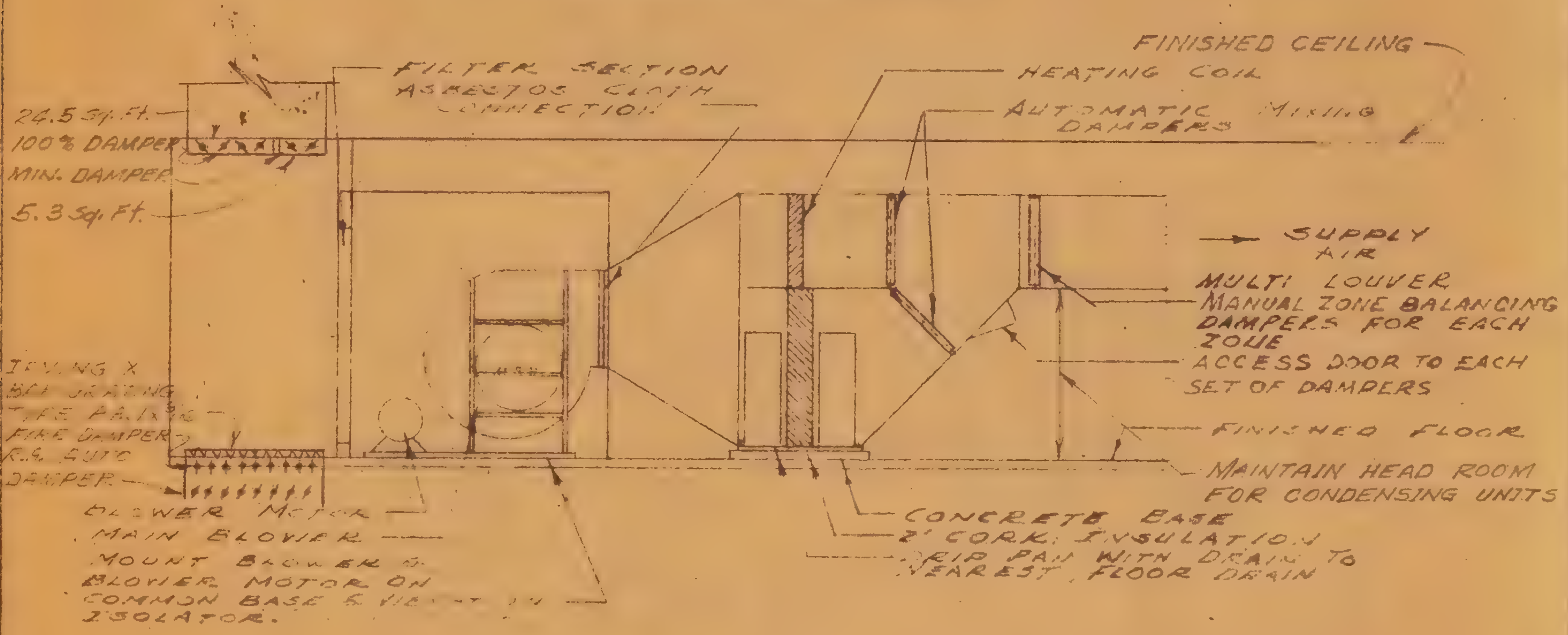
DRAWN BY
N-A-D 5-21-56

J. C. PENNEY CO. INC.
[illegible] DIV.

DETAIL No
M-120-A


FILTER SECTION
BLOWER MOTOR
BLOWER PLENUM
MAIN BLOWER
ACCESS DOOR
COOLING COIL
HEATING COIL
AUTOMATIC MIXING DAMPERS
F.A. AUTO. DAMPERS WITH MIN. SECTION
A
R.A. DUCT
R.A. AUTO. DAMPERS
2 ZONES REQUIRED
A
FLOOR DRAIN
ACCESS DOOR

PLAN VIEW


FILTER SECTION
ASBESTOS CLOTH CONNECTION
24.5 Sq. Ft.
100% DAMPER
MIN. DAMPER
5.3 Sq. Ft.
FINISHED CEILING
HEATING COIL
AUTOMATIC MIXING DAMPERS
SUPPLY AIR
MULTI LOUVER MANUAL ZONE BALANCING DAMPERS FOR EACH ZONE
ACCESS DOOR TO EACH SET OF DAMPERS
FINISHED FLOOR
MAINTAIN HEAD ROOM FOR CONDENSING UNITS
FIRE DAMPER
R.A. AUTO DAMPER
BLOWER MOTOR
MAIN BLOWER
MOUNT BLOWER & BLOWER MOTOR ON COMMON BASE & VIBRATION ISOLATOR.
CONCRETE BASE
2" CORK INSULATION
DRIP PAN WITH DRAIN TO NEAREST FLOOR DRAIN

SECTION · A-A

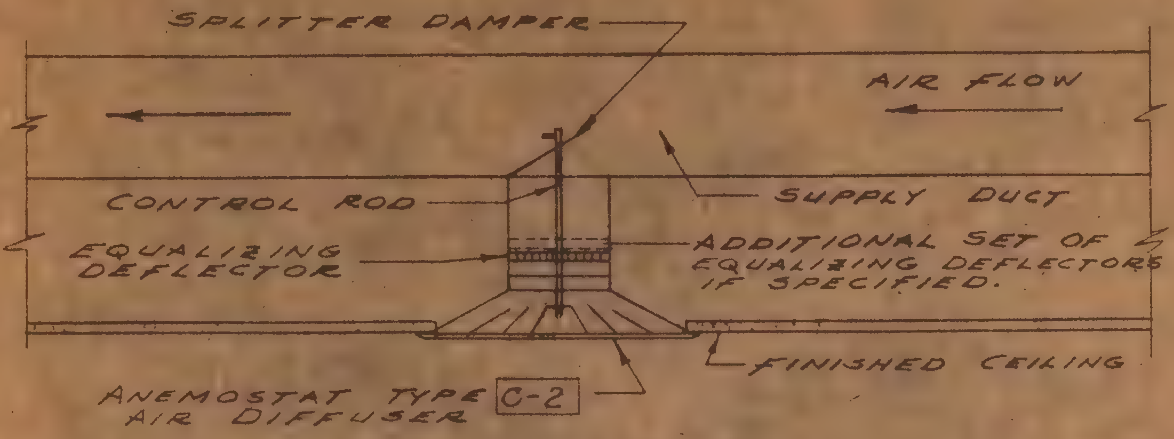
STORE ATHENS, GA. No. 570

TYPICAL BLOW THRU SYSTEM

DRAWN BY:
W.G.N. 9-26-52
REV. T.E. 3-[illegible]-56
REV. M.I. 3-25-56

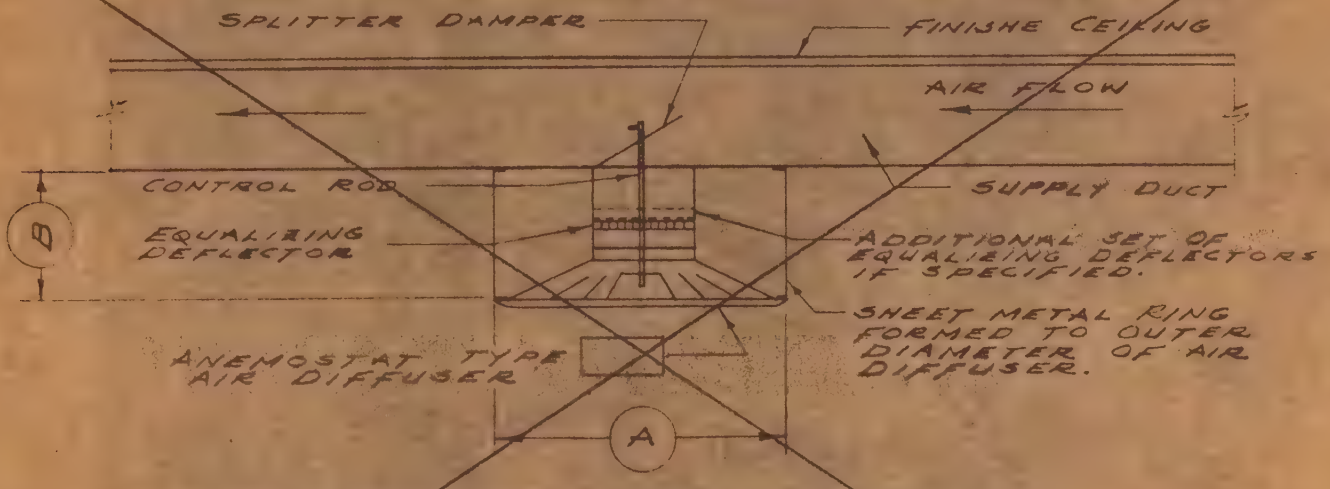
J.C. PENNEY CO. INC.
REAL ESTATE DEPT. CONSTRUCTION DIV.
330 W. 34TH STREET NEW YORK CITY

DETAIL NO.
M-125


SPLITTER DAMPER
AIR FLOW
CONTROL ROD
SUPPLY DUCT
EQUALIZING DEFLECTOR
ADDITIONAL SET OF EQUALIZING DEFLECTORS IF SPECIFIED.
FINISHED CEILING
ANEMOSTAT TYPE C-2 AIR DIFFUSER

TYPICAL ANEMOSTAT INSTALLATION WITH DUCTS CONCEALED IN CEILING

NOT APPLICABLE


SPLITTER DAMPER
FINISHE CEILING
AIR FLOW
CONTROL ROD
SUPPLY DUCT
B
EQUALIZING DEFLECTOR
ADDITIONAL SET OF EQUALIZING DEFLECTORS IF SPECIFIED.
SHEET METAL RING FORMED TO OUTER DIAMETER OF AIR DIFFUSER.
ANEMOSTAT TYPE AIR DIFFUSER
A

ANEMOSTAT SIZE	A	B	ANEMOSTAT SIZE	A	B

TYPICAL ANEMOSTAT INSTALLATION WITH EXPOSED DUCTWORK

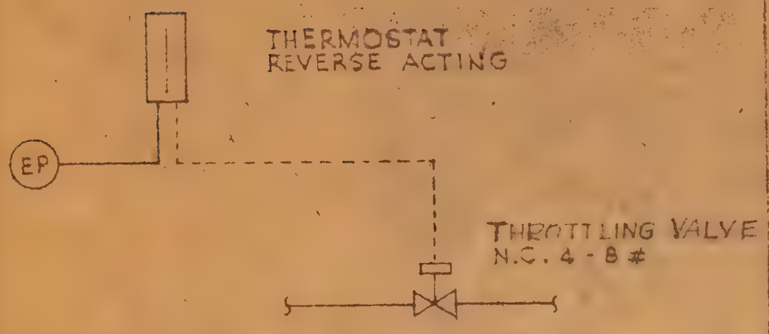
STORE ATHENS, GA. No. 570

TYPICAL ANEMOSTAT INSTALLATION

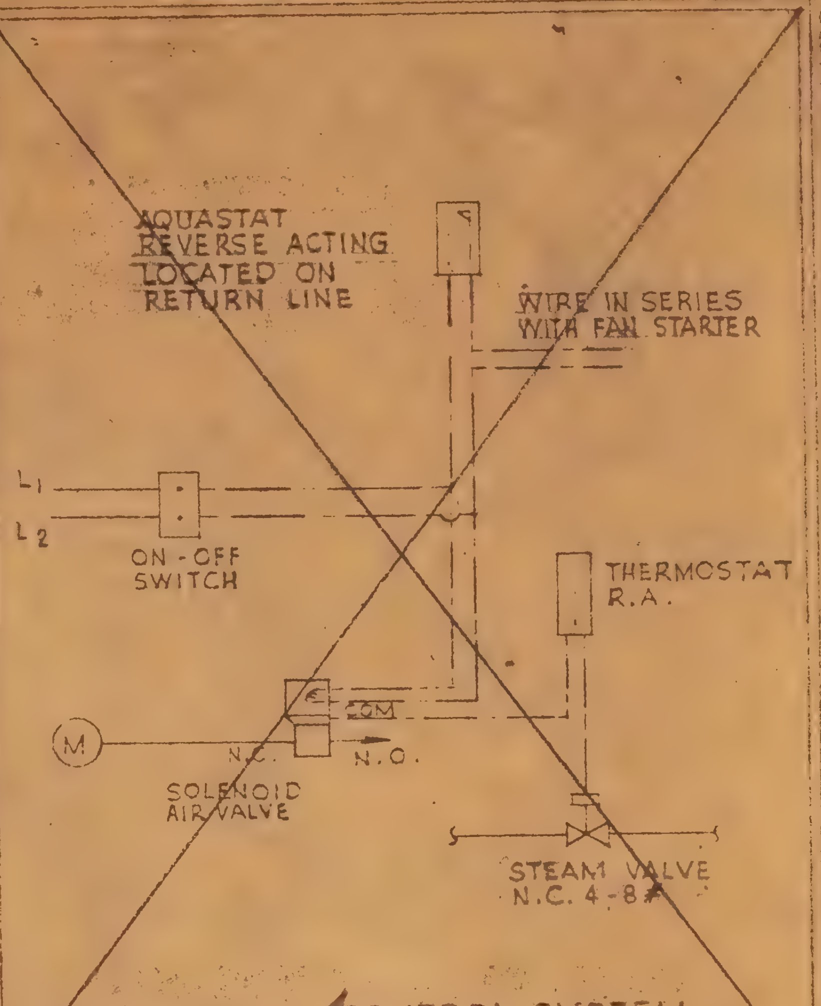
DRAWN BY:
H.C.N. 9-25-52

J.C. PENNEY CO. INC.
REAL ESTATE DEPT.
330 W. 34TH STREET
CONSTRUCTION DIV.
NEW YORK CITY

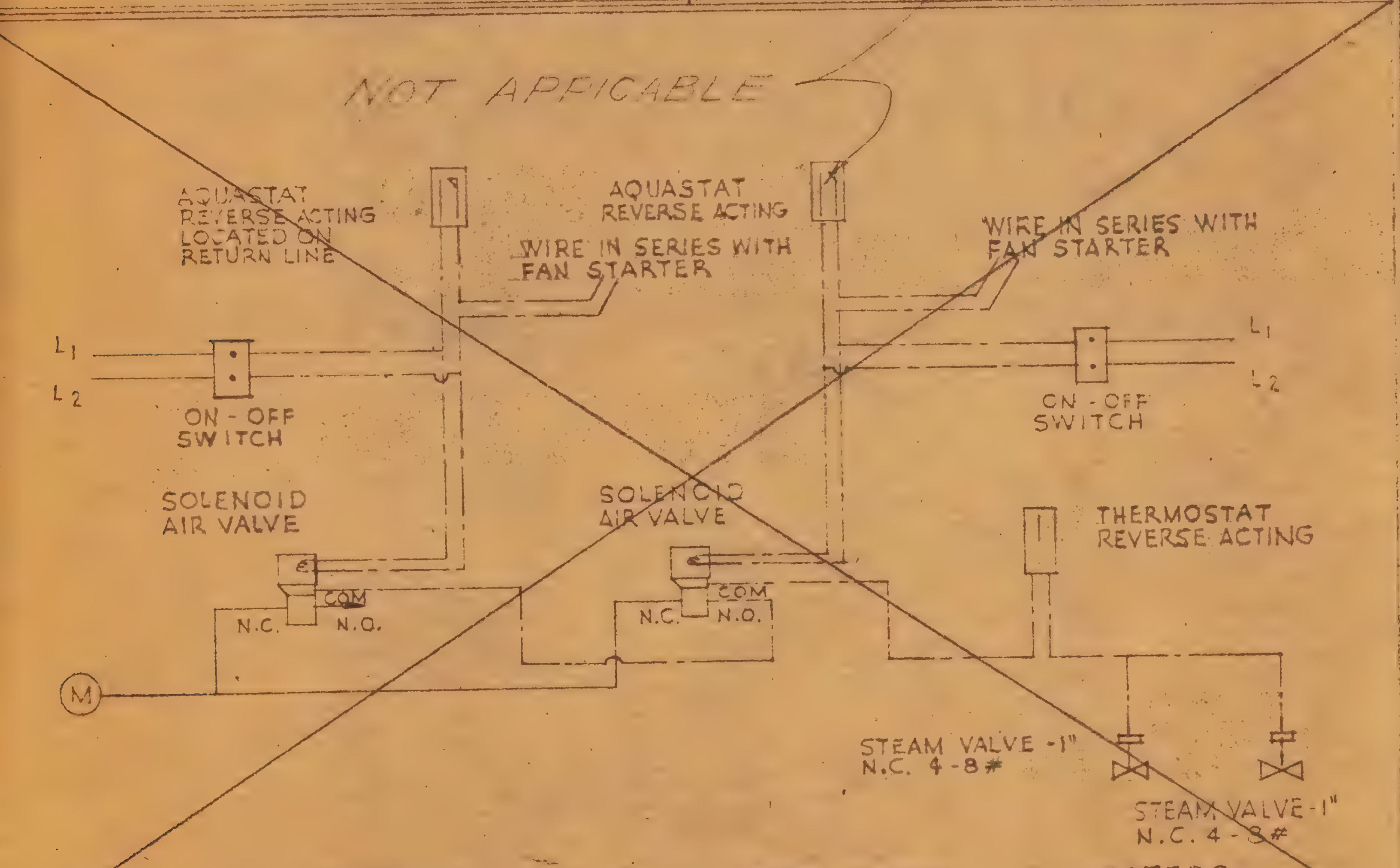
DETAIL No.
M-127


THERMOSTAT
REVERSE ACTING
EP
THROTTLING VALVE
N.C. 4 - 8 #

PNEUMATIC CONTROL SYSTEM FOR BOOSTER COIL


AQUASTAT
REVERSE ACTING
LOCATED ON
RETURN LINE
WIRE IN SERIES
WITH FAN STARTER
L1
L2
ON - OFF
SWITCH
THERMOSTAT
R.A.
COM
M
N.C.
N.O.
SOLENOID
AIR VALVE
STEAM VALVE
N.C. 4 - 8 #

PNEUMATIC CONTROL SYSTEM FOR ONE FORCE-FLO HEATER


AQUASTAT
REVERSE ACTING
LOCATED ON
RETURN LINE
AQUASTAT
REVERSE ACTING
WIRE IN SERIES WITH
FAN STARTER
WIRE IN SERIES WITH
FAN STARTER
L1
L2
ON - OFF
SWITCH
L1
L2
ON - OFF
SWITCH
SOLENOID
AIR VALVE
SOLENOID
AIR VALVE
THERMOSTAT
REVERSE ACTING
COM
N.C.
N.O.
COM
N.C.
N.O.
M
STEAM VALVE -1"
N.C. 4 - 8 #
STEAM VALVE -1"
N.C. 4 - 8 #

NOT APPICABLE

PNEUMATIC CONTROL SYSTEM FOR TWO FORCE-FLO HEATERS

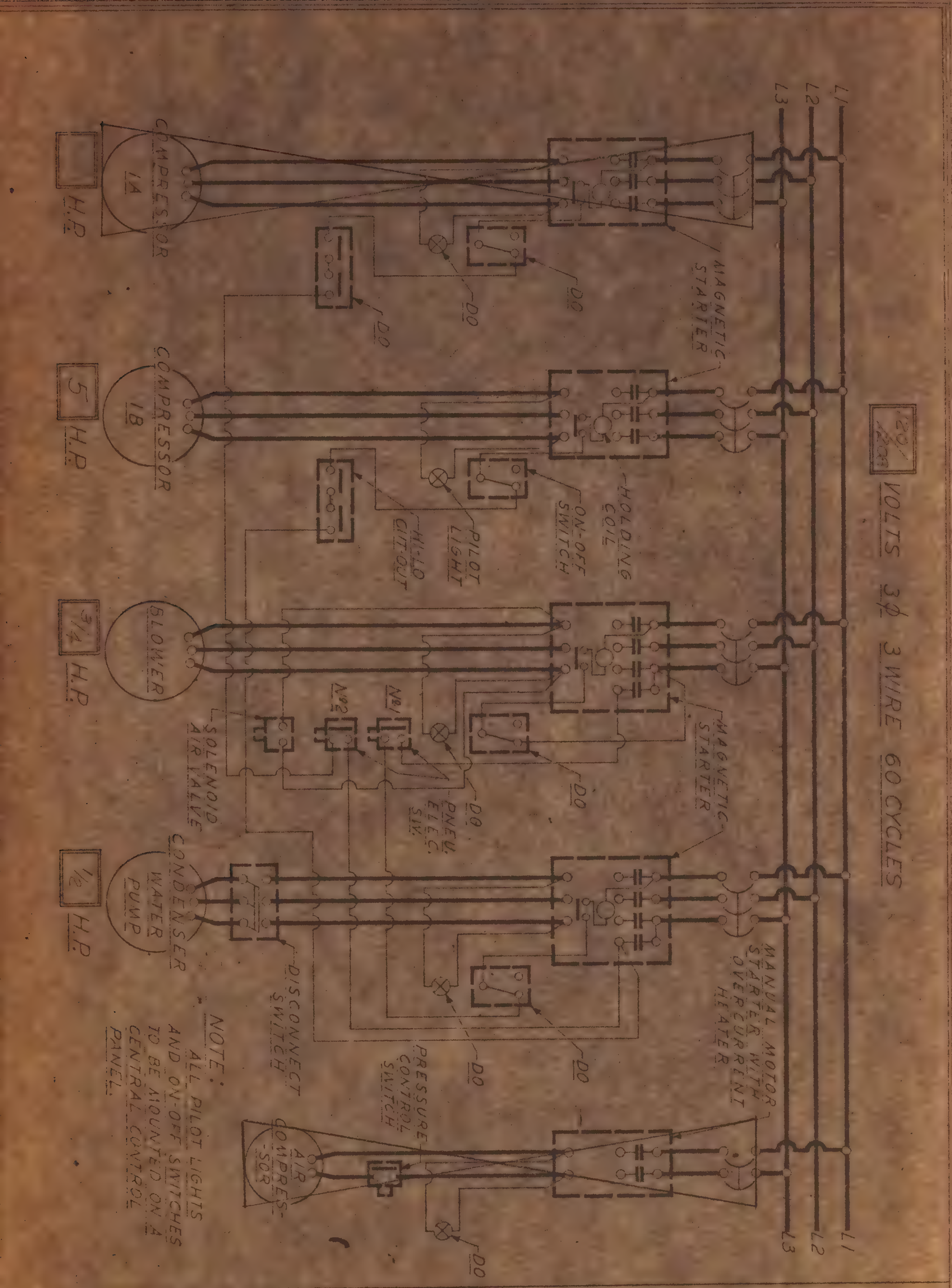
STORE ATHENS, GA. Nº 570

PNEUMATIC CONTROL SYSTEMS

DRAWN BY
N-A-D-5-7-56

J. C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT · CONSTRUCTION DIVISION
330 W. 34 TH STREET NEW YORK CITY

DRAWING Nº
M-133


L1
L2
L3
120/208 VOLTS 3Ø 3 WIRE 60 CYCLES
MAGNETIC STARTER
HOLDING COIL
ON-OFF SWITCH
PILOT LIGHT
HI-LO CUT-OUT
DO
COMPRESSOR 1A
H.P
COMPRESSOR 1B
5 H.P
BLOWER
3/4 H.P
SOLENOID AIR VALVE
No2
No1
PNEU. ELEC. S.W.
MAGNETIC STARTER
CONDENSER WATER PUMP
1/2 H.P
DISCONNECT SWITCH
MANUAL MOTOR STARTER WITH OVERCURRENT HEATER
PRESSURE CONTROL SWITCH
AIR COMPRESSOR

NOTE: ALL PILOT LIGHTS AND ON-OFF SWITCHES TO BE MOUNTED ON A CENTRAL CONTROL PANEL.

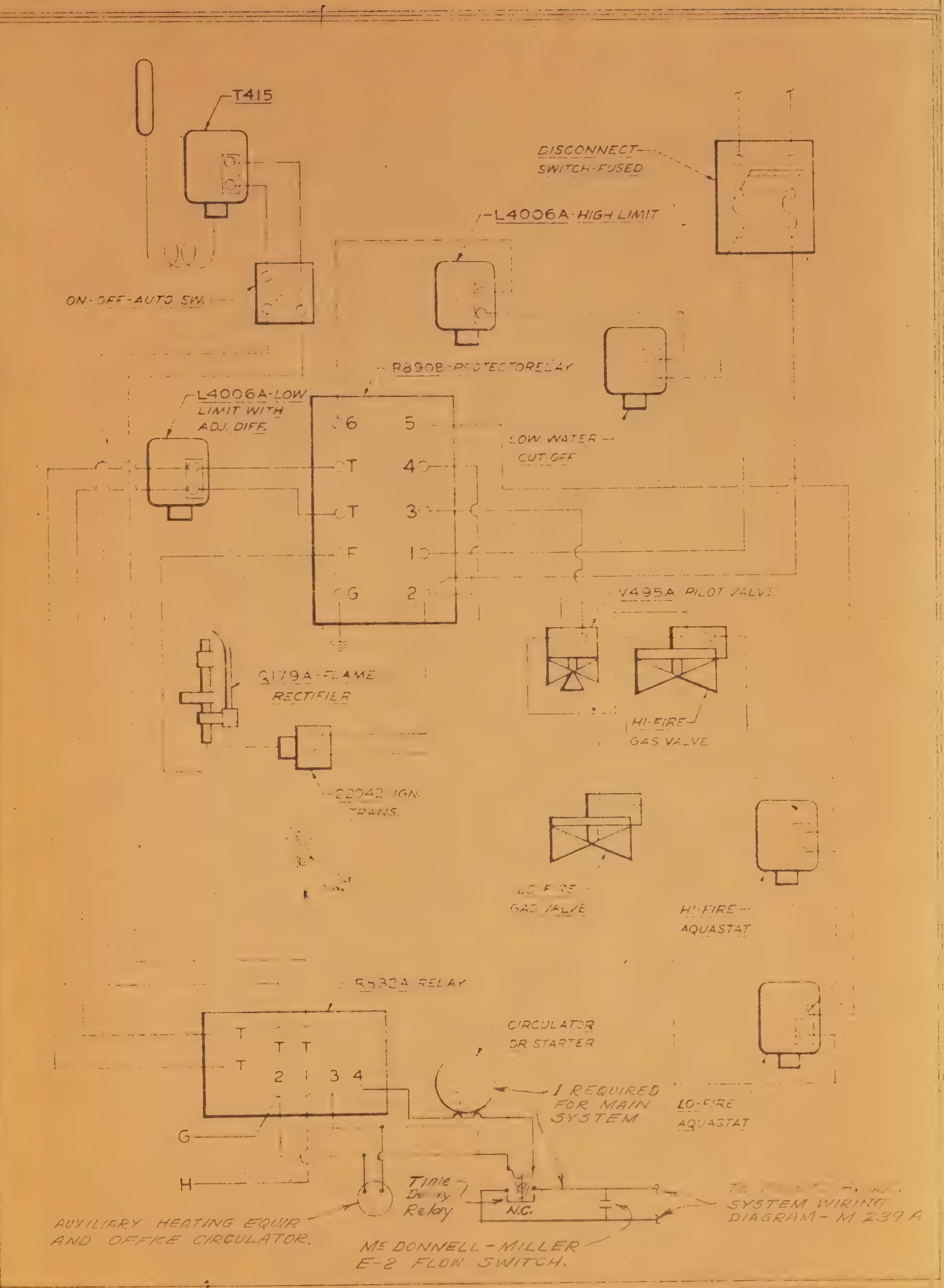
STORE ATHENS, GA. No. 570

ELECTRIC WIRING DIAGRAM

DRAWN BY:
R.M.W. 9-28-53

J. C. PENNEY CO. INC.
REAL ESTATE DEPT. CONSTRUCTION DIV.
330 W. 34 ST. NEW YORK CITY

DETAIL No
M169


T415
DISCONNECT SWITCH-FUSED
L4006A-HIGH LIMIT
ON-OFF-AUTO SW.
R8908-PROTECTORELAY
L4006A-LOW LIMIT WITH ADJ. DIFF.
6
5
T
4
T
3
F
1
G
2
LOW WATER CUT OFF
V495A PILOT VALVE
C179A-FLAME RECTIFIER
HI-FIRE GAS VALVE
22042 IGN. TRANS.
LO FIRE GAS VALVE
HI-FIRE AQUASTAT
R532A RELAY
T
T
T
T
2
1
3
4
CIRCULATOR OR STARTER
1 REQUIRED FOR MAIN SYSTEM
LO-FIRE AQUASTAT
G
H
Time Delay Relay
N.C.
SYSTEM WIRING DIAGRAM - M 239 A
AUXILIARY HEATING EQUIP. AND OFFICE CIRCULATOR.
Mc DONNELL - MILLER E-2 FLOW SWITCH.

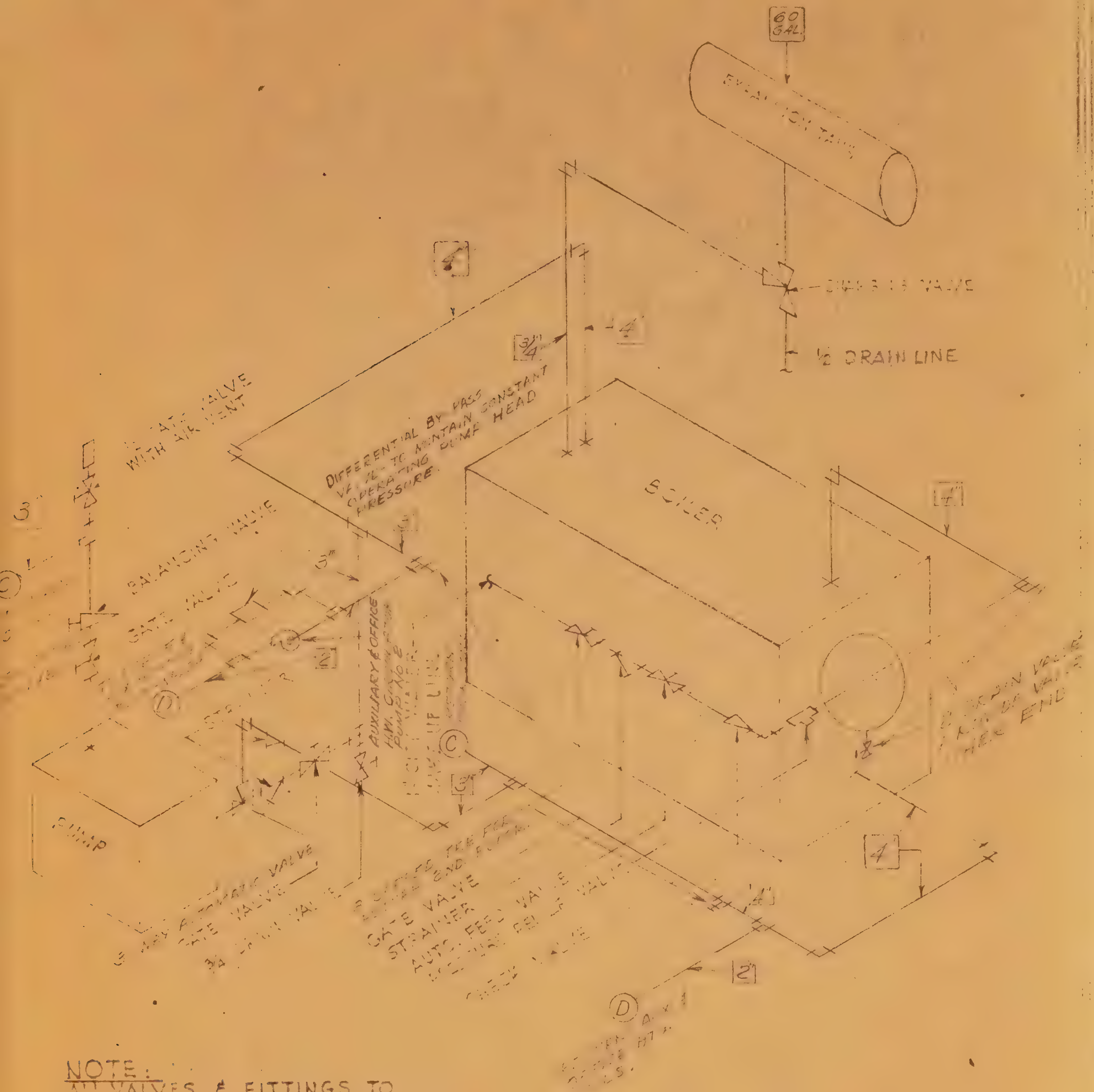
STORE ATHENS, GA. No [illegible]

BOILER CONTROL WIRING DIAG. FOR GAS FORCED HOT WATER

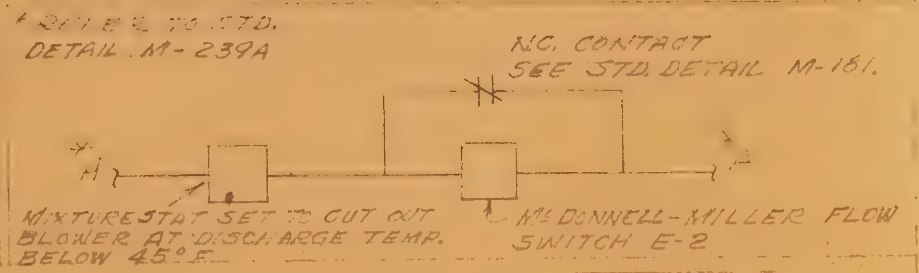
DRAWN BY:
R.M.W. 8-16-55

J. C. PENNEY CO. INC.
REAL ESTATE DEPT.
330 W. 34 ST.
CONSTRUCTION DIV.
NEW YORK CITY

DETAIL NO.
M18


60 GAL.
EXPANSION TANK
DRAIN VALVE
½ DRAIN LINE
4
¾"
4
BOILER
4
GATE VALVE WITH AIR VENT
3
C
DIFFERENTIAL BY PASS VALVE TO MAINTAIN CONSTANT OPERATING PUMP HEAD PRESSURE
BALANCING VALVE
3"
3
GATE VALVE
2
D
PUMP
AUXILIARY & OFFICE H.W. CIRCUIT PUMP No. 2
C
3
3 WAY AUTOMATIC VALVE
GATE VALVE
¾ DRAIN VALVE
TEE FOR END
GATE VALVE
STRAINER
AUTO. FEED VALVE
RELIEF VALVE
CHECK VALVE
DRAIN VALVE
OTHER END
4
4"
2
D

NOTE:
ALL VALVES & FITTINGS TO
BE SAME SIZE AS PIPE
UNLESS OTHERWISE NOTED.


* REFER TO STD.
DETAIL M-239A
N.C. CONTACT
SEE STD. DETAIL M-181.
H
MIXTURESTAT SET TO CUT OUT
BLOWER AT DISCHARGE TEMP.
BELOW 45° F.
McDONNELL-MILLER FLOW
SWITCH E-2

STORE ATHENS, GA. No 570

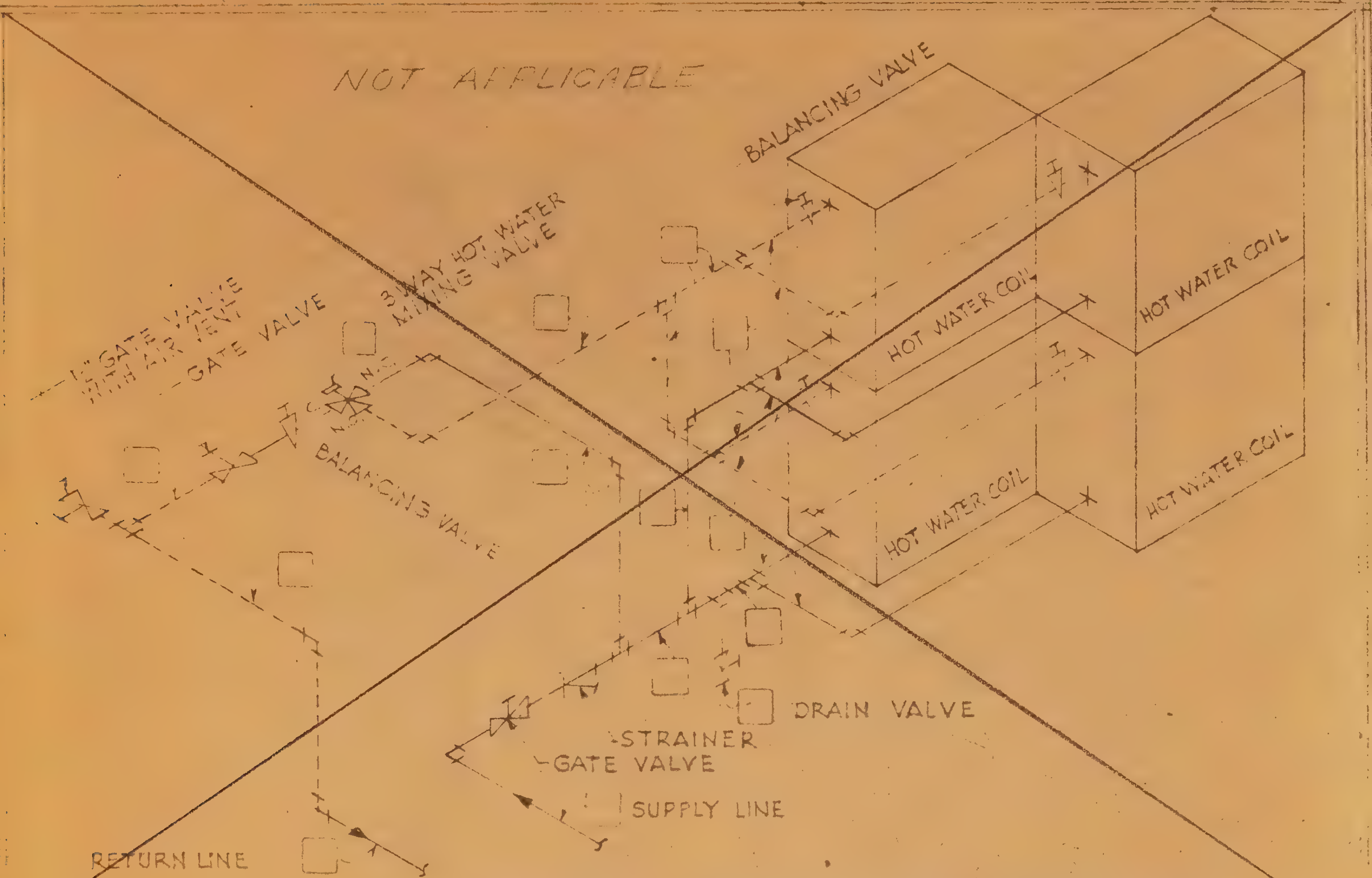
HOT WATER PIPING SCHEMATIC AT BOILER

J. C. PENNEY CO. INC.

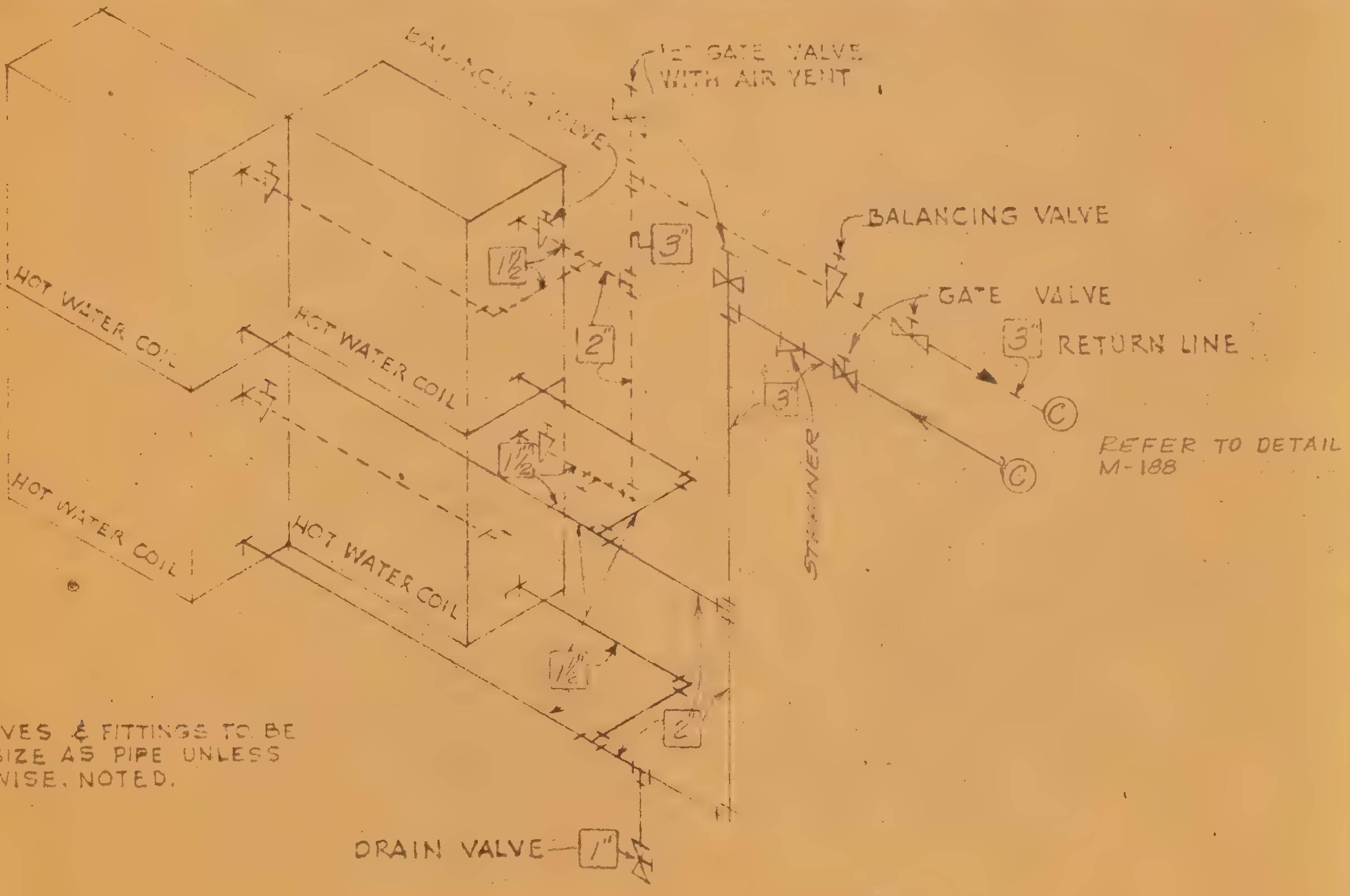
REAL ESTATE DEPARTMENT · CONSTRUCTION DIVISION.
330 W. 34th ST. NEW YORK CITY

M-183

NOT APPLICABLE


BALANCING VALVE
HOT WATER COIL
HOT WATER COIL
HOT WATER COIL
HOT WATER COIL
3 WAY HOT WATER MIXING VALVE
1½" GATE VALVE WITH AIR VENT
GATE VALVE
BALANCING VALVE
DRAIN VALVE
STRAINER
GATE VALVE
SUPPLY LINE
RETURN LINE

UTILIZING DIRECT ACTING THERMOSTAT


BALANCING VALVE
1½" GATE VALVE WITH AIR VENT
BALANCING VALVE
GATE VALVE
3"
RETURN LINE
1½"
2"
3"
3"
C
C
REFER TO DETAIL M-188
HOT WATER COIL
HOT WATER COIL
HOT WATER COIL
HOT WATER COIL
1½"
STRAINER
1½"
2"
DRAIN VALVE
1"

NOTE:
ALL VALVES & FITTINGS TO BE SAME SIZE AS PIPE UNLESS OTHERWISE. NOTED.

STORE ATHENS, GA. Nº 57[illegible]

SCHEMATIC HOT WATER PIPING TO HEATING COIL

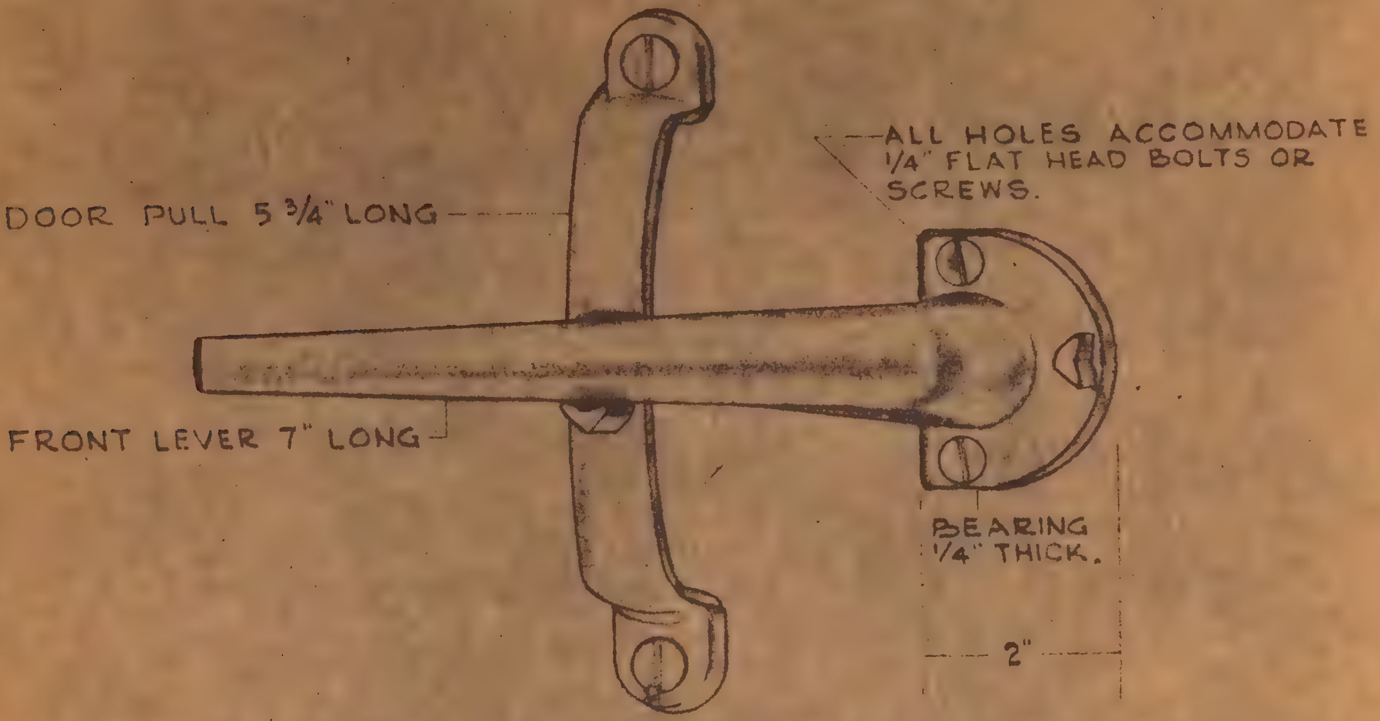
DRAWN BY
W.L.D. 5-3-56

J. C. PENNEY CO. INC.

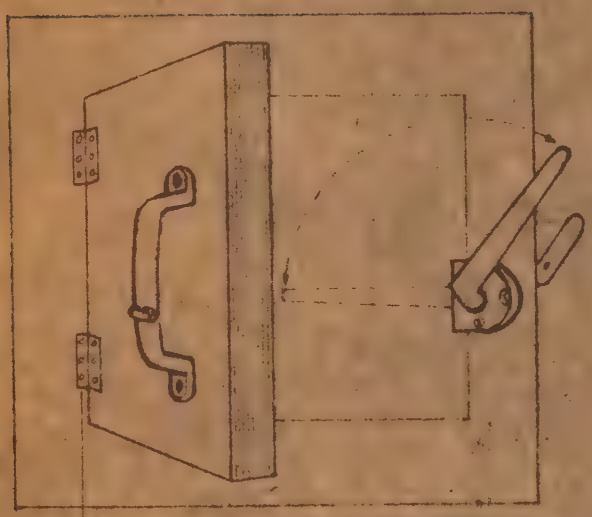
REAL ESTATE DEPT.
330 W. 34 TH. ST.

CONSTRUCTION DIV.
NEW YORK CITY

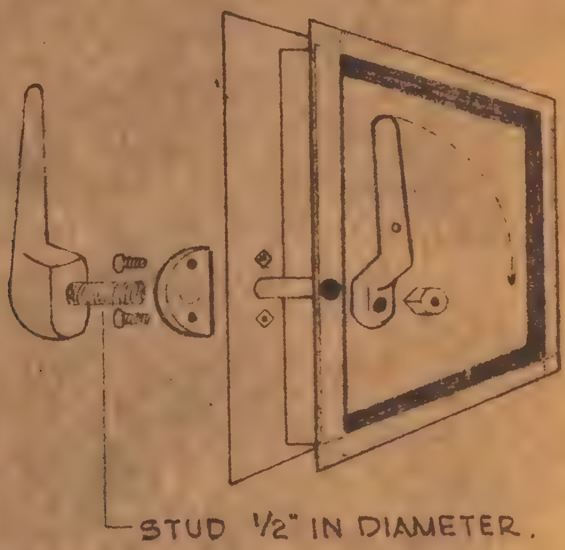
DETAIL NO
M-192


ALL HOLES ACCOMMODATE 1/4" FLAT HEAD BOLTS OR SCREWS.
DOOR PULL 5 3/4" LONG
FRONT LEVER 7" LONG
BEARING 1/4" THICK.
2"

Nº 310 VENTLOK LATCH COMPLETE AS MANUFACTURED BY VENTFABRICS, INC. 640 NORTH KEDZIE AVE., CHICAGO 12, ILL.



Nº 260 BRASS PIN VENTLOK HINGE AS MANUFACTURED BY VENTFABRICS, INC. 640 NORTH KEDZIE AVE., CHICAGO 12, ILL.


STUD 1/2" IN DIAMETER.

NOTE: ABOVE HARDWARE IS FOR USE ON DOORS GREATER THAN FOUR (4) SQ. FT. IN AREA. ALL ACCESS DOORS LESS THAN FOUR SQUARE FEET IN AREA TO BE MADE WITH VENTLOK LATCH SERIES Nº 100 AND Nº 260 BRASS PIN HINGES.

1/4" FELT GASKETING OR ASBESTOS CLOTH TO BE USED THROUGH-OUT.

STORE ATHENS, GA. Nº 570

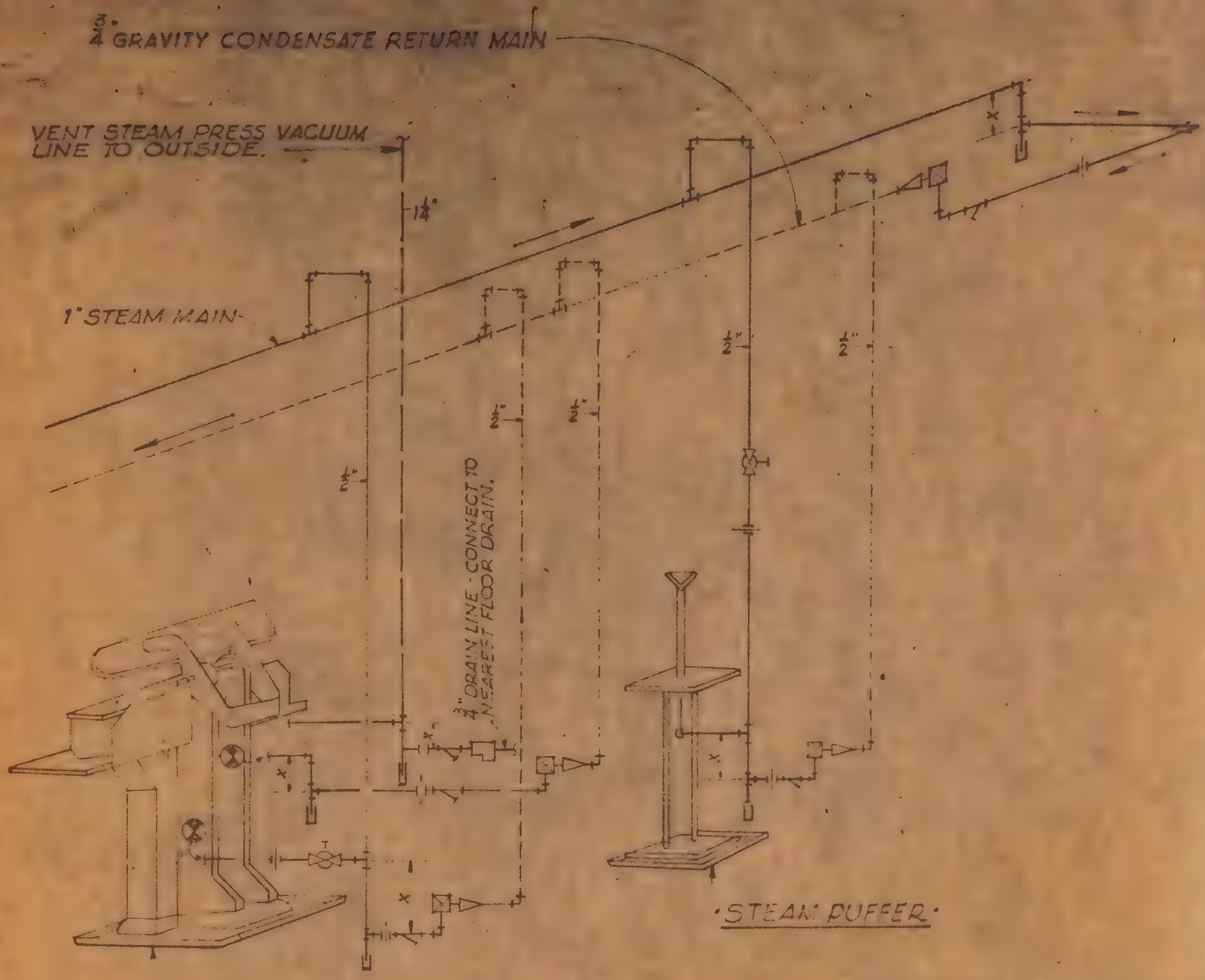
ACCESS DOOR HARDWARE

DRAWN BY
L.R. 4·29·58
REV. 6·6·58 CK.

J.C. PENNEY CO. INC.

REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34TH ST. NEW YORK CITY.

DETAIL Nº
M-194


$\frac{3}{4}$" GRAVITY CONDENSATE RETURN MAIN
VENT STEAM PRESS VACUUM LINE TO OUTSIDE.
1$\frac{1}{4}$"
1" STEAM MAIN
X
$\frac{1}{2}$"
$\frac{1}{2}$"
$\frac{1}{2}$"
$\frac{1}{2}$"
$\frac{1}{2}$"
$\frac{3}{4}$" DRAIN LINE: CONNECT TO NEAREST FLOOR DRAIN.
X
X
X
X

·STEAM PUFFER·

·PROVIDE 20 GA. GALVANIZED METAL DRIP PANS, TURNED-UP LIP TO BE BROKEN OVER TOP & TO BE 1" IN HEIGHT.

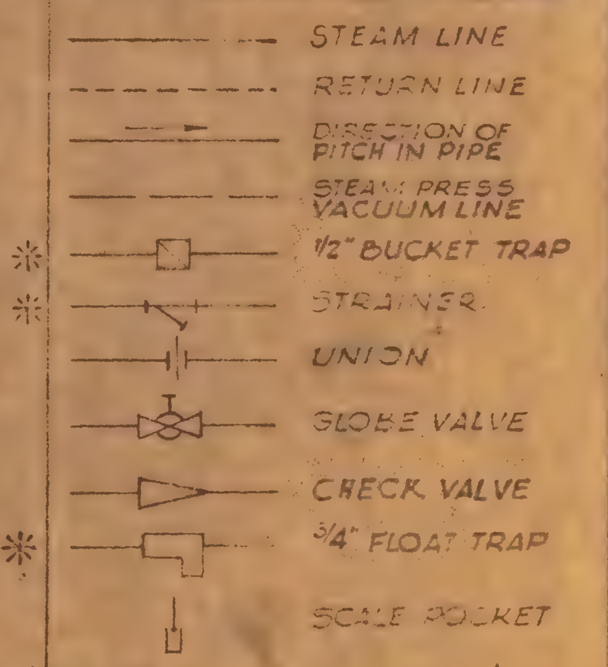
·STEAM PRESS·

NOTE:

ALL STEAM SPECIALTIES MARKED WITH AN ASTERISK (✳) UNDER PIPING SYMBOLS FURNISHED BY J.C. PENNEY CO.

DIMENSION "X" IS 12" MINIMUM.

·PIPING SYMBOLS·



STEAM LINE
RETURN LINE
DIRECTION OF PITCH IN PIPE
STEAM PRESS VACUUM LINE
✳ 1/2" BUCKET TRAP
✳ STRAINER
UNION
GLOBE VALVE
CHECK VALVE
✳ 3/4" FLOAT TRAP
SCALE POCKET

⊗ PIPING & FITTINGS FROM THIS POINT FURNISHED WITH STEAM PRESSING EQUIPMENT.

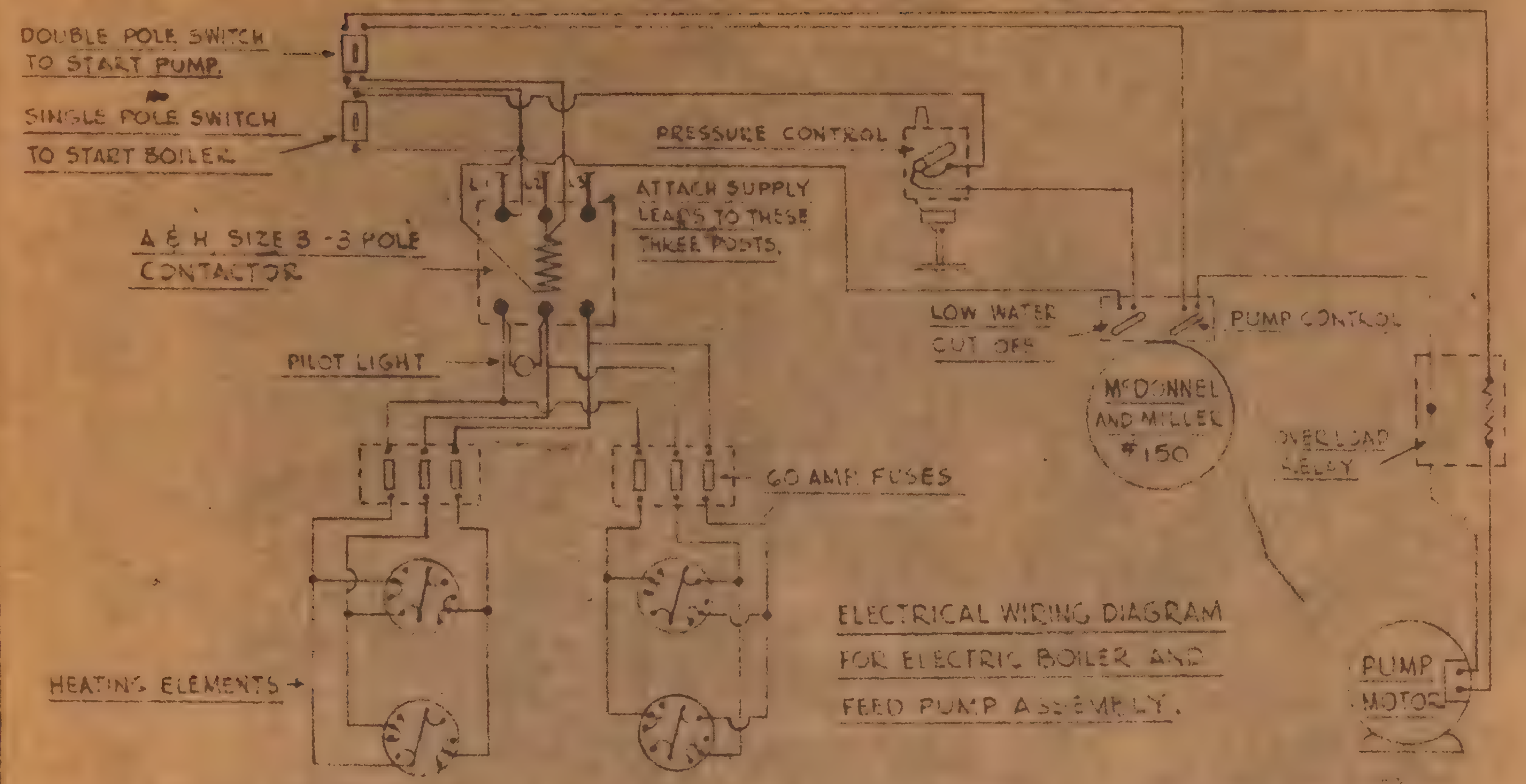
STORE ATHENS, GA. № 570

DIAGRAMMATIC PIPING CONNECTIONS TO STEAM PRESSING EQUIPMENT.

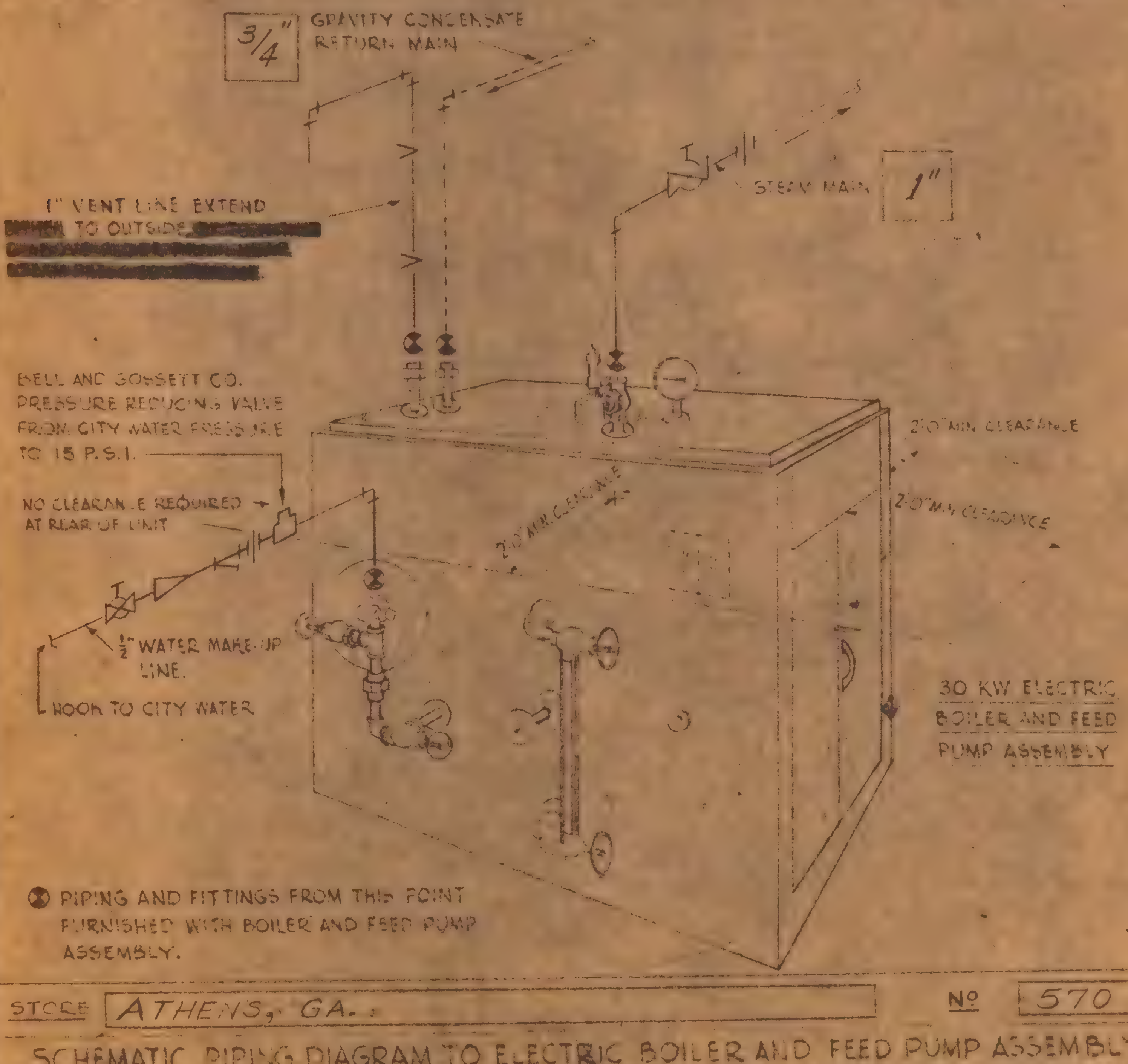
DRAWN BY:
C.A.R. 2-11-59

J.C. PENNEY CO. INC.
·REAL ESTATE DEPARTMENT·
CONSTRUCTION DIVISION
330 W 34TH ST. NEW YORK CITY.

DRAWING №
M-201


DOUBLE POLE SWITCH TO START PUMP.
SINGLE POLE SWITCH TO START BOILER
PRESSURE CONTROL
ATTACH SUPPLY LEADS TO THESE THREE POSTS.
A & H SIZE 3 -3 POLE CONTACTOR
LOW WATER CUT OFF
PUMP CONTROL
McDONNEL AND MILLER #150
PILOT LIGHT
OVERLOAD RELAY
60 AMP. FUSES
HEATING ELEMENTS
PUMP MOTOR

ELECTRICAL WIRING DIAGRAM FOR ELECTRIC BOILER AND FEED PUMP ASSEMBLY.


3/4"
GRAVITY CONDENSATE RETURN MAIN
1" VENT LINE EXTEND
[redacted] TO OUTSIDE [redacted]
STEAM MAIN
1"
BELL AND GOSSETT CO. PRESSURE REDUCING VALVE FROM CITY WATER PRESSURE TO 15 P.S.I.
NO CLEARANCE REQUIRED AT REAR OF UNIT
2'-0" MIN. CLEARANCE
2'-0" MIN. CLEARANCE
2'-0" MIN. CLEARANCE
½" WATER MAKE-UP LINE.
HOOK TO CITY WATER

30 KW ELECTRIC BOILER AND FEED PUMP ASSEMBLY

⊗ PIPING AND FITTINGS FROM THIS POINT FURNISHED WITH BOILER AND FEED PUMP ASSEMBLY.

STORE ATHENS, GA.

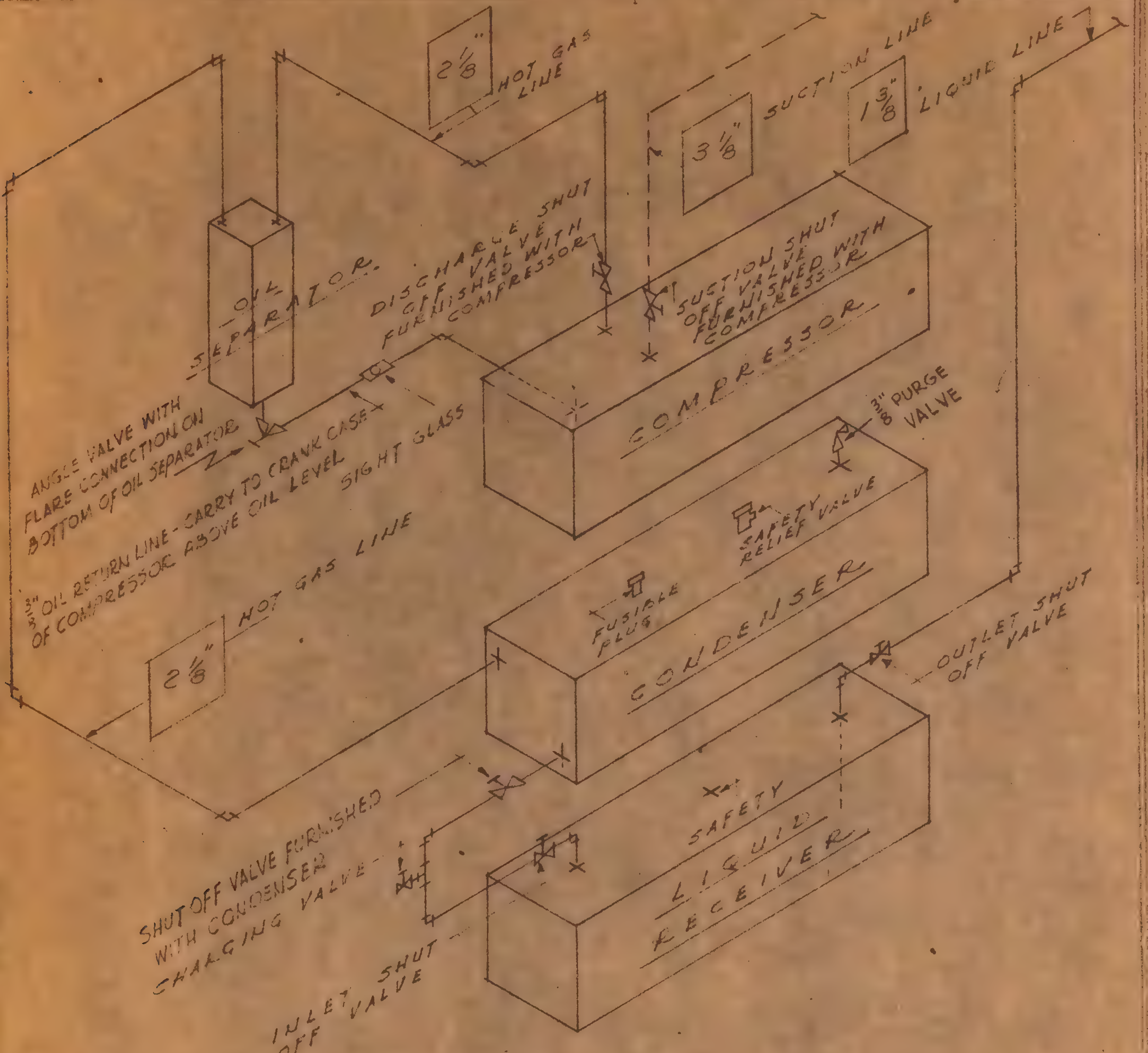
№ 570

SCHEMATIC PIPING DIAGRAM TO ELECTRIC BOILER AND FEED PUMP ASSEMBLY

DRAWN BY:
SJC 3-6-57
REV. 1-2-59 SJC
REV. 1-26-59 JG

J. C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT · CONSTRUCTION DIVISION
330 WEST 34TH STREET
NEW YORK CITY 1, N.Y.

DRAWING NO.
M-203B


2 1/8"
HOT GAS LINE
SUCTION LINE
3 1/8"
1 3/8"
LIQUID LINE
OIL SEPARATOR
DISCHARGE SHUT OFF VALVE FURNISHED WITH COMPRESSOR
SUCTION SHUT OFF VALVE FURNISHED WITH COMPRESSOR
COMPRESSOR
ANGLE VALVE WITH FLARE CONNECTION ON BOTTOM OF OIL SEPARATOR
3/8" OIL RETURN LINE - CARRY TO CRANK CASE OF COMPRESSOR ABOVE OIL LEVEL
SIGHT GLASS
3/8" PURGE VALVE
SAFETY RELIEF VALVE
FUSIBLE PLUG
CONDENSER
HOT GAS LINE
2 1/8"
OUTLET SHUT OFF VALVE
SHUT OFF VALVE FURNISHED WITH CONDENSER
CHARGING VALVE
SAFETY
LIQUID RECEIVER
INLET SHUT OFF VALVE

NOTE:
ALL VALVES & FITTINGS TO
BE SAME SIZE AS PIPE
UNLESS OTHERWISE NOTED.
WHERE MULTIPLE COMPRESSOR
INSTALLATIONS ARE INVOLVED
THE ABOVE PIPING SHALL
APPLY TO EACH COMPRESSOR.

TWO REQUIRED

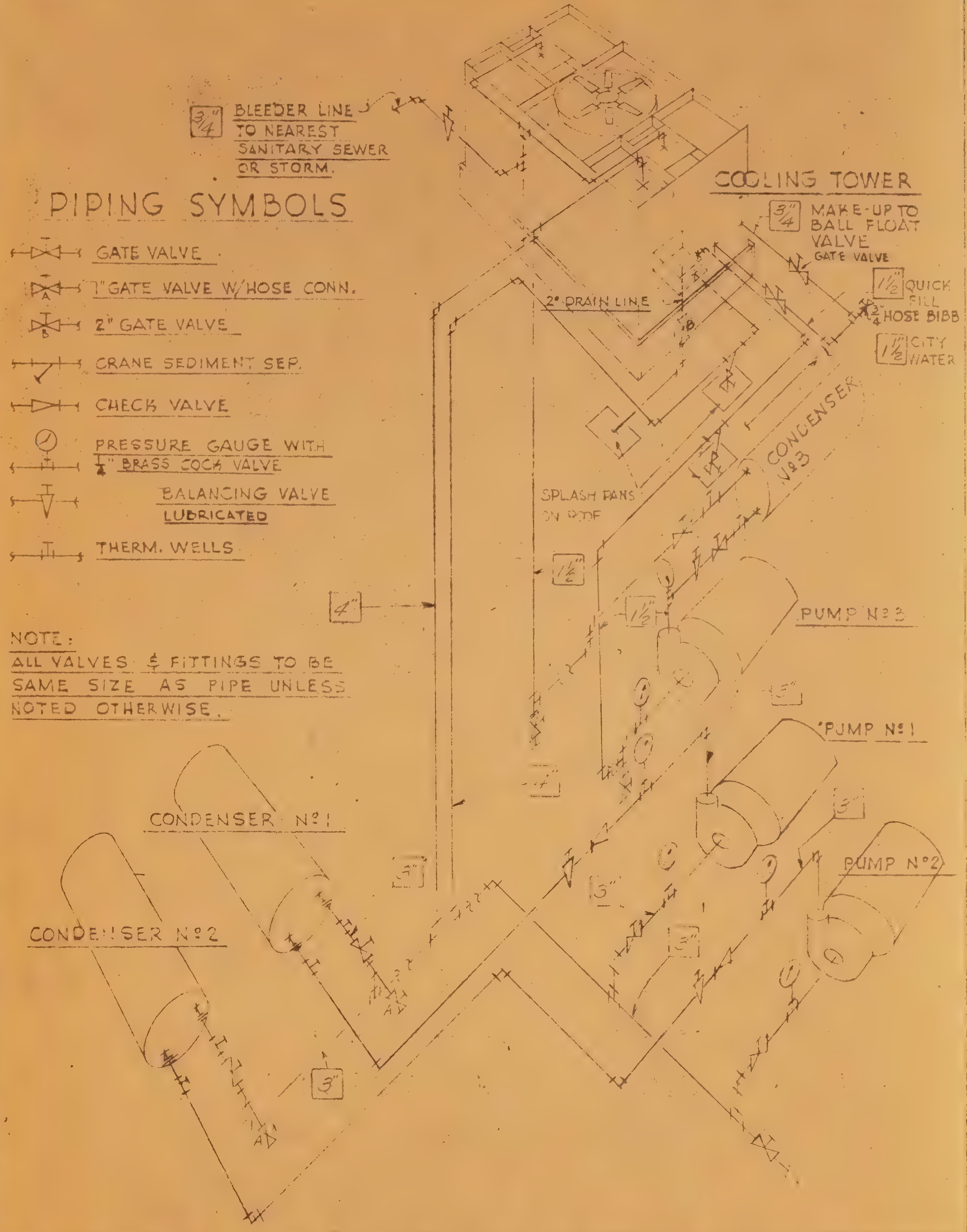
STORE ATHENS, GA. Nº 570

SCHEMATIC OF FRECN PIPING AT CONDENSER.

REDRAWN BY
M Z 4-23-56
REV. S.J.C. 2-14-57

J.C. PENNEY CO INC.
REAL ESTATE DEPT. CONSTRUCTION DIV
330 W 34 ST. NEW YORK CITY

DETAIL Nº
M205



3/4" BLEEDER LINE TO NEAREST SANITARY SEWER OR STORM.
PIPING SYMBOLS
GATE VALVE
A 1" GATE VALVE W/HOSE CONN.
B 2" GATE VALVE
CRANE SEDIMENT SEP.
CHECK VALVE
PRESSURE GAUGE WITH 1/4" BRASS COCK VALVE
BALANCING VALVE LUBRICATED
THERM. WELLS
COOLING TOWER
3/4" MAKE-UP TO BALL FLOAT VALVE
GATE VALVE
1 1/2" QUICK FILL
3/4" HOSE BIBB
1 1/2" CITY WATER
2" DRAIN LINE
B
CONDENSER Nº3
SPLASH PANS ON ROOF
1 1/2"
1 1/2"
4"
PUMP Nº3
5"
PUMP Nº1
4"
3"
PUMP Nº2
CONDENSER Nº1
CONDENSER Nº2
5"
5"
3"
3"
AV
AV

NOTE:
ALL VALVES & FITTINGS TO BE SAME SIZE AS PIPE UNLESS NOTED OTHERWISE.

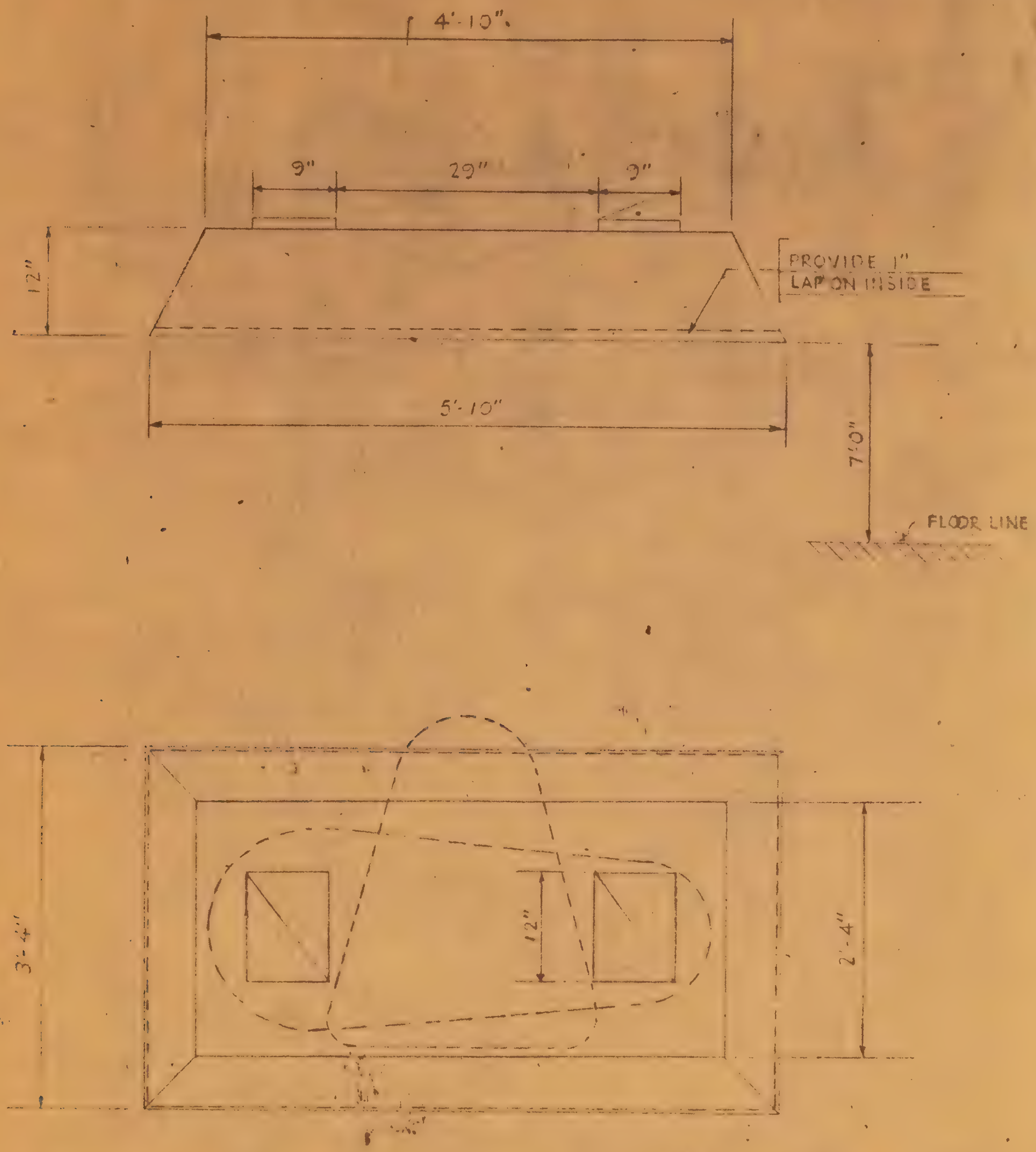
STORE ATHENS, GA. Nº 57[illegible]

SCHEMATIC CONDENSER WATER PIPING SYSTEM

DRAWN BY
N-A-D- 5-28-56
REV. 7-2-56 H-A-G
REV. 2-18-57 - N-A-D

J. C. PENNEY CO., INC.
REAL ESTATE DEPT.
CONSTRUCTION DIV.
330 W. 34 TH. ST.
NEW YORK CITY

DETAIL Nº
M-210-A


4'-10"
9"
29"
9"
12"
PROVIDE 1"
LAP ON INSIDE
5'-10"
7'-0"
FLOOR LINE
3'-4"
12"
2'-4"

NOTES:
EXHAUST FROM HOOD
TO BE 1500 C.F.M.
USE 18 GAUGE GALVANIZED
SHEET METAL.

HOOD FOR HOFFMAN PRESS.

SCALE [illegible]

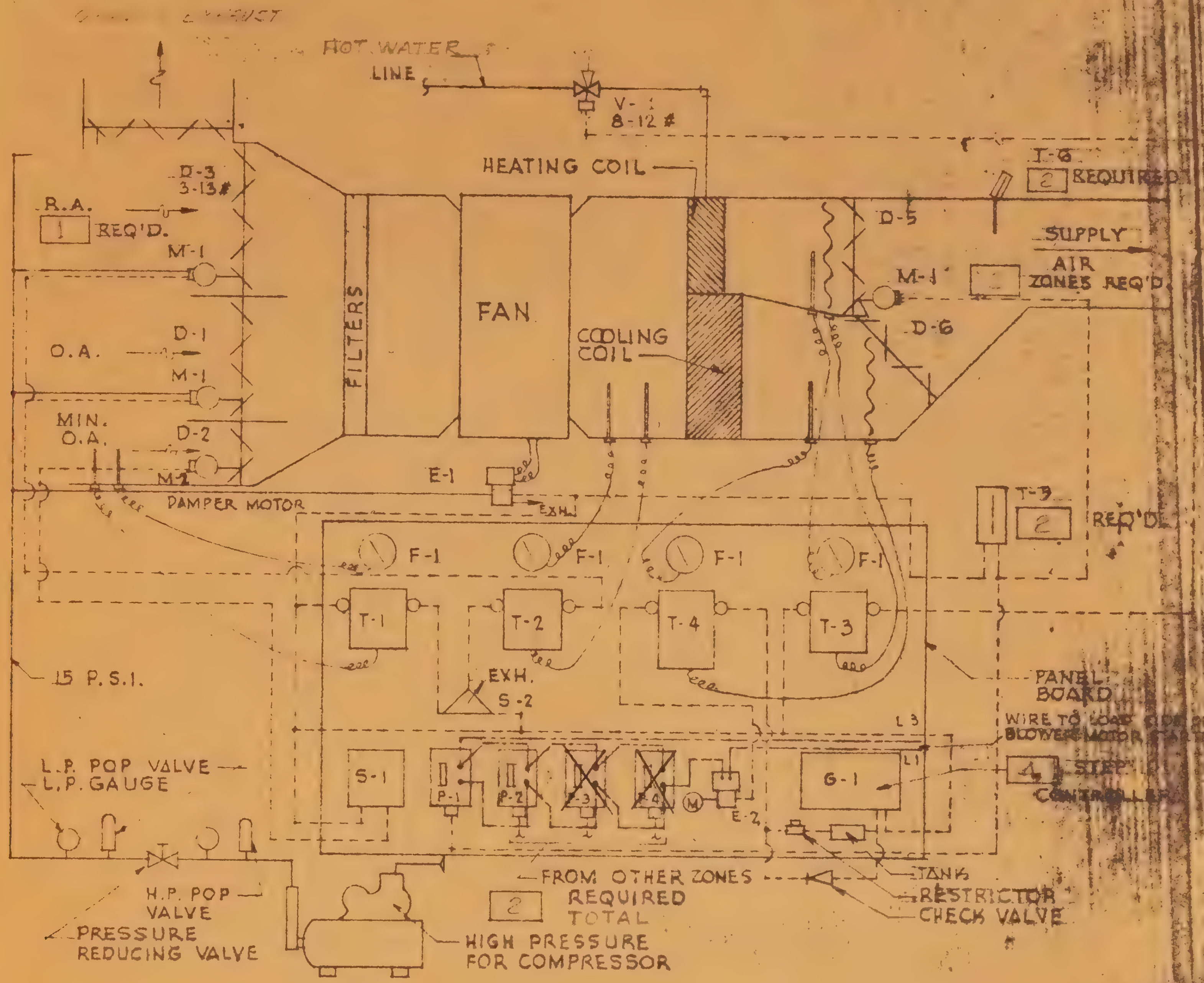
STORE ATHENS, GA. Nº 570

EXHAUST HOOD - FOR STEAM PRESS EQUIPMENT

DRAWN BY:
REV. 4-29-55

J.C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT • CONSTRUCTION DIVISION
330 WEST 34TH ST. NEW YORK CITY 1, N.Y.

DRAWING Nº
M-223


EXHAUST
HOT WATER LINE
V-1 8-12 #
HEATING COIL
T-6
2 REQUIRED
D-3 3-13#
R.A.
1 REQ'D.
M-1
O.A.
D-1
M-1
MIN. O.A.
D-2
M-2
FILTERS
FAN
COOLING COIL
D-5
M-1
D-6
SUPPLY AIR
ZONES REQ'D.
DAMPER MOTOR
E-1
EXH.
F-1
F-1
F-1
F-1
T-5
2 REQ'D.
T-1
T-2
T-4
T-3
EXH.
S-2
15 P.S.I.
PANEL BOARD
WIRE TO LOAD SIDE OF BLOWER MOTOR STARTER
L3
L1
L.P. POP VALVE
L.P. GAUGE
S-1
P-1
P-2
E-2
G-1
4 STEP CONTROLLER
M
H.P. POP VALVE
PRESSURE REDUCING VALVE
FROM OTHER ZONES
2 REQUIRED TOTAL
HIGH PRESSURE FOR COMPRESSOR
TANK
RESTRICTOR
CHECK VALVE

D-1 AUXILIARY OUTDOOR AIR DAMPER - NORMALLY CLOSED - OPPOSED ACTING DAMPER BLADES.
D-2 MINIMUM OUTDOOR AIR DAMPER - NORMALLY CLOSED - OPPOSED ACTING DAMPER BLADES.
D-3 RETURN AIR DAMPER - NORMALLY OPEN - OPPOSED ACTING DAMPER BLADES.

D-5 FACE DAMPER - NORMALLY OPEN - OPPOSED ACTING DAMPER BLADES
D-6 BY-PASS DAMPER - NORMALLY CLOSED - OPPOSED ACTING DAMPER BLADES.
E-1,2 ELECTRIC - PNEUMATIC SOLENOID AIR VALVE.
F-1 DIAL INDICATING THERMOMETER.
G-1 STEP CONTROLLER.
M-1 PILOT OPERATED DAMPER MOTOR.
M-2 DAMPER MOTOR
P-1-2 PNEUMATIC ELECTRIC SWITCHES
S-1 MINIMUM OUTDOOR AIR SWITCH - 2 POSITION
S-2 OPEN, CLOSED, & AUTOMATIC CHANGE OVER SWITCH.
T-1 REMOTE BULB OUTDOOR AIR DRY BULB CHANGE OVER THERMOSTAT REVERSE ACTING - SET AT 75° F. POSITIVE ACTION.
T-2 REMOTE BULB MIXTURE THERMOMETER - DIRECT ACTING - GRADUAL ACTION - WITH EIGHT (8) FOOT SENSITIVE ELEMENT SET AT 60°F.
T-3 REMOTE BULB HOT DECK THERMOSTAT - REVERSE ACTING - WITH SIXTEEN (16') FOOT SENSITIVE ELEMENT SET AT 100°F.
T-4 REMOTE BULB DEW POINT THERMOSTAT - DIRECT ACTING WITH SIXTEEN (16') FOOT SENSITIVE ELEMENT.
T-5 ZONE THERMOSTAT - DIRECT ACTING - GRADUAL ACTING.
T-6 RIGID STEM THERMOMETER.
V-1 AUTOMATIC HOT WATER MIXING VALVE - - NORMALLY CLOSED.
REFER TO DETAIL M-188
NAMEPLATES TO BE PROVIDED ADJACENT TO EACH INSTRUMENT MOUNTED ON PANEL BOARD INDICATING THE FUNCTION THE PARTICULAR INSTRUMENT SERVES.

STORE ATHENS, GA. Nº [illegible]

PNEUMATIC CONTROL SYSTEM

DRAWN BY N-A-D
5-2-56
REV-2-20-57 N-A-D

J. C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT ◦ CONSTRUCTION DIVISION
330 W. 34TH STREET NEW YORK CITY

DRAWING Nº
M-232-A

The operation of the pneumatic control system shown on the J. C. Penney Company, Inc. Standard Detail Drawing No. 232A is as follows:

When the supply fan is started, E-1 is energized to supply compressed air at 15 lbs. per square inch to S-1, placing same into operation. S-1 will allow minimum outdoor air damper D-2 to be placed in any desired position when E-1 places it in control. When the supply fan is stopped, E-1 is de-energized to close minimum outdoor air damper D-2, auxiliary outdoor air damper D-1, and open return air damper D-3.

When the outdoor air temperature is below the setting of dry-bulb change-over thermostat T-1, T-1 will permit mixture thermostat T-2 to control dampers D-1 and D-3.

Rising temperature above the setting of T-2, will cause T-2 to gradually increase its branch line pressure to open auxiliary outdoor air damper D-1 and close return air damper D-3. If the mixture temperature falls below the setting of T-2, T-2 will then gradually reverse the above described cycle of damper operation.

Thermostat T-3 will control *hot water mixing valve V-1.* **On falling air temperature below the** setting of T-3, T-3 will increase its branch line pressure to gradually open [illegible] valve V-1. [illegible] *valves.* Rising temperature above the setting of thermostat T-3 will reverse the above cycle of valve operation. Zone thermostat T-5 will control its respective zone mixing dampers D-5 and D-6.

When the outdoor air temperature is above the setting of T-1, T-1 will exhaust its branch line pressure to thermostat T-2 thereby closing damper D-1 completely and opening D-3.

In addition to the cycle described previously for dampers, a "close-automatic-open" change-over switch S-2, will permit the operator to either close damper D-1 completely, place damper D-1 in automatic operation, or open the damper D-1 completely. However, thermostat T-2 will over-call if the fan discharge temperature falls below the setting of T-2.

T-4, dew point thermostat, will actuate step controller G-1 to provide the required cooling in accordance to the sequence of refrigeration operation, as shown on the mechanical plans when the dew point temperature of the air leaving the cooling coils is above the setting of T-4.

Step controller, G-1, shall control the operation of compressors Nos. 1 and 2, and shall be equipped with a manual sequence switch to alternate the sequence of operation of the compressors. G-1 shall be equipped with time delay equipment to prevent the compressors, capacity reduction devices, and refrigeration solenoid valves from cycling with temporary loads and to prevent the starting of both compressors at the same time. G-1 shall also be equipped with a power failure cut-out.

~~Step controller, G-1,~~ shall control the operation of the compressor. ~~G-1 shall be equipped~~ with time delay equipment to prevent ~~the capacity reduction devices~~ and refrigeration solenoid valves ~~from cycling with temporary~~ loads and shall be equipped with a power failure cut-out.

All damper and valve motors shall be pilot operated, where indicated.

All steam valves shall be equipped with throttling plugs.

All remote bulb thermometers and thermostats shall have capillaries of sufficient length as necessary to mount controls on the panel in the location as shown on the mechanical plans.

All thermostats and thermostatic elements shall be installed where directed by the J. C. Penney Company, Inc. or where shown on the mechanical plans.

The air compressor shall be of the high pressure type complete with A.S.M.E. tank, ball bearing motor, and all accessory equipment necessary for full automatic operation. This compressor shall be sized to handle all control operations with the compressor operating 1/3 of the time and off 2/3 of the time.

Controls shall be as manufactured and installed by the *Minneapolis-Honeywell Regulator Co. or Johnson Service Co.*

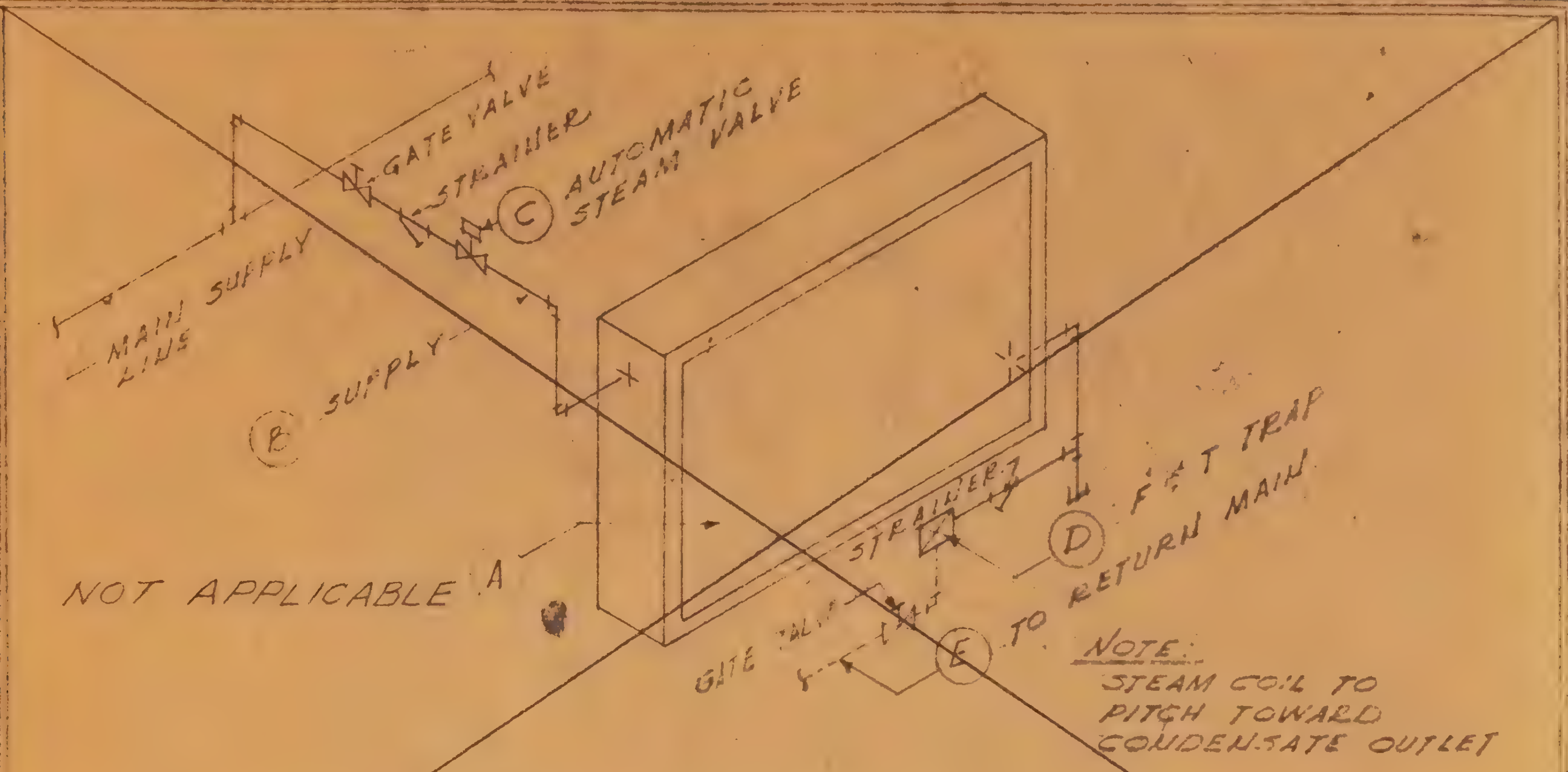
STORE ATHENS, GA. № 570

DESCRIPTION OF PNEUMATIC CONTROL SYSTEM

REV. [illegible]

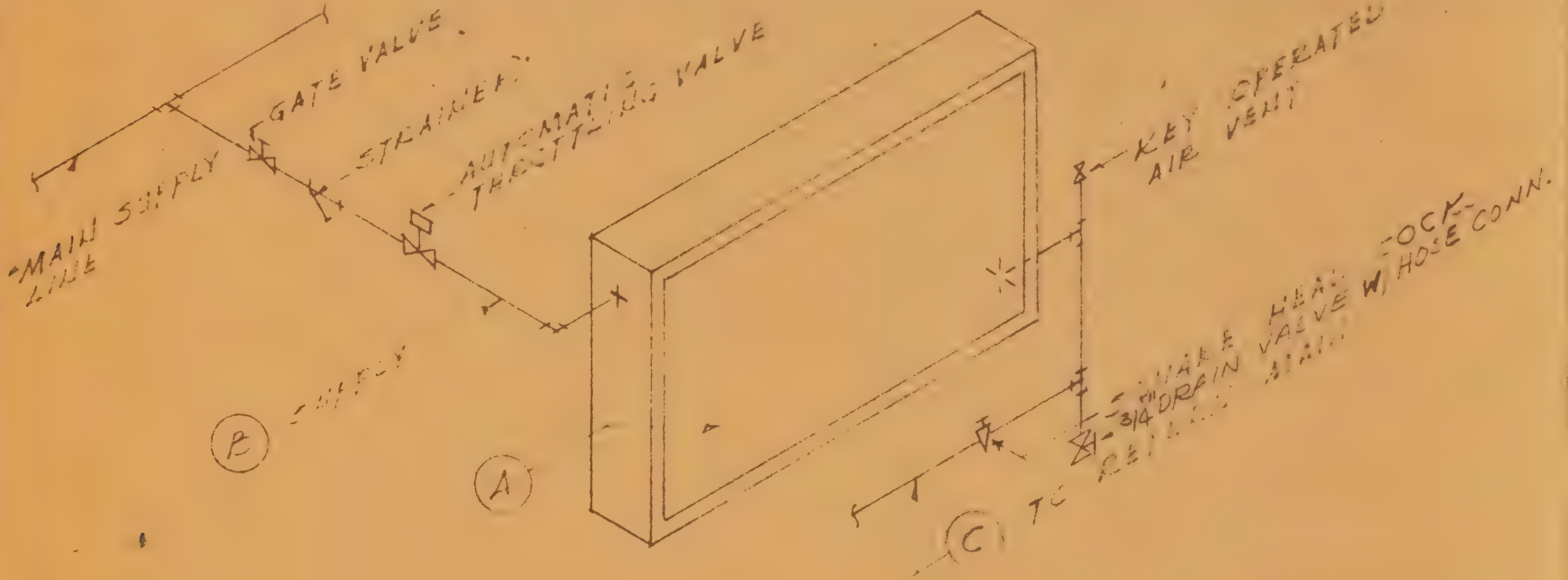
J.C.PENNEY CO. INC.
·REAL ESTATE DEPARTMENT·
·CONSTRUCTION DIVISION·
330 W. 34TH ST NEW YORK [illegible]

M-[illegible]


MAIN SUPPLY LINE
GATE VALVE
STRAINER
(C) AUTOMATIC STEAM VALVE
(B) SUPPLY
NOT APPLICABLE A
STRAINER
F & T TRAP
(D)
GATE VALVE
TRAP
(E) TO RETURN MAIN
NOTE:
STEAM COIL TO PITCH TOWARD CONDENSATE OUTLET

BOOSTER COIL	SIZE COIL A	SUPPLY B	VALVE C	TRAP D	RETURN E
1					
2.					
3.					

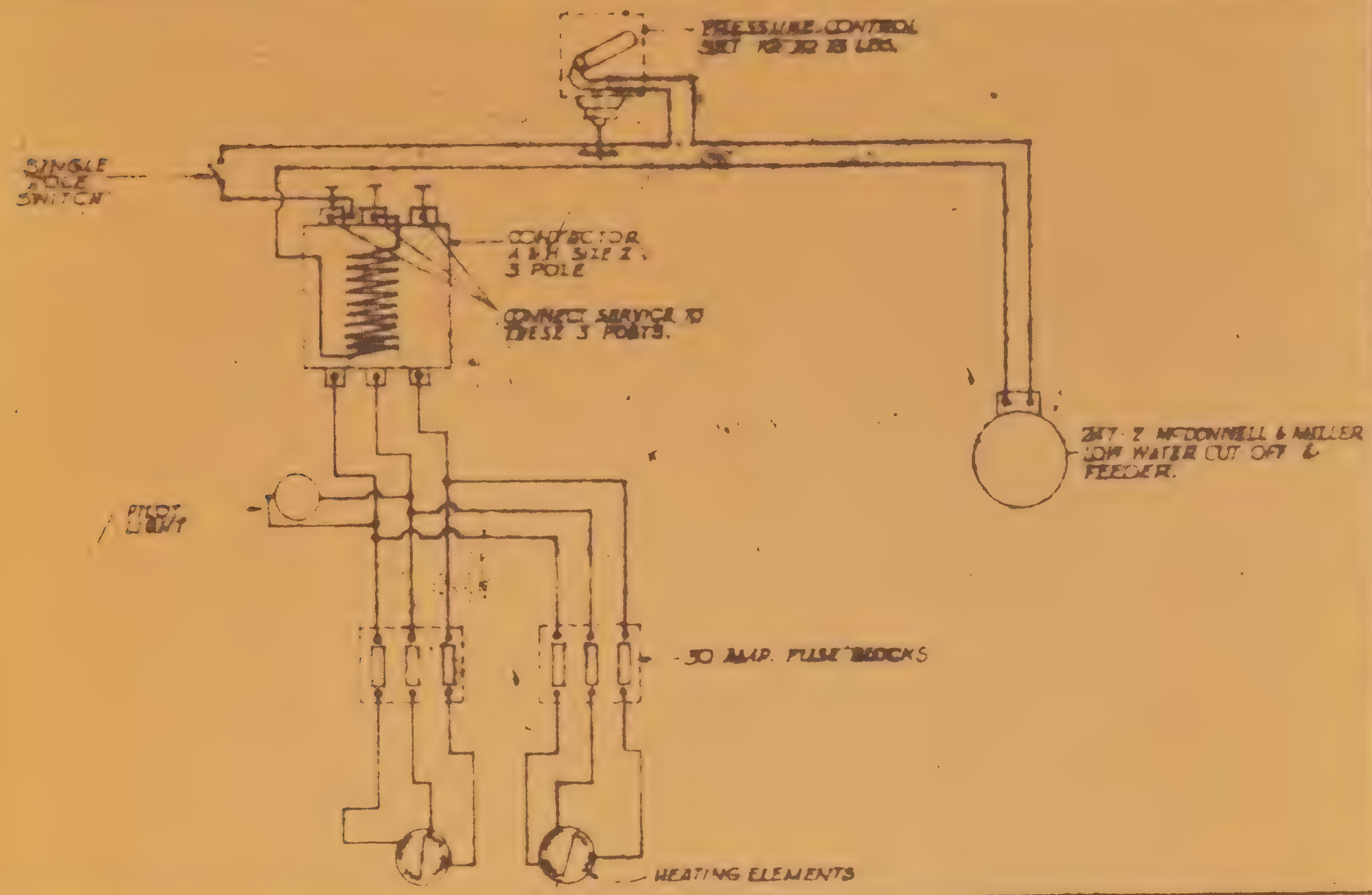
LOW PRESSURE STEAM PIPING CONNECTIONS

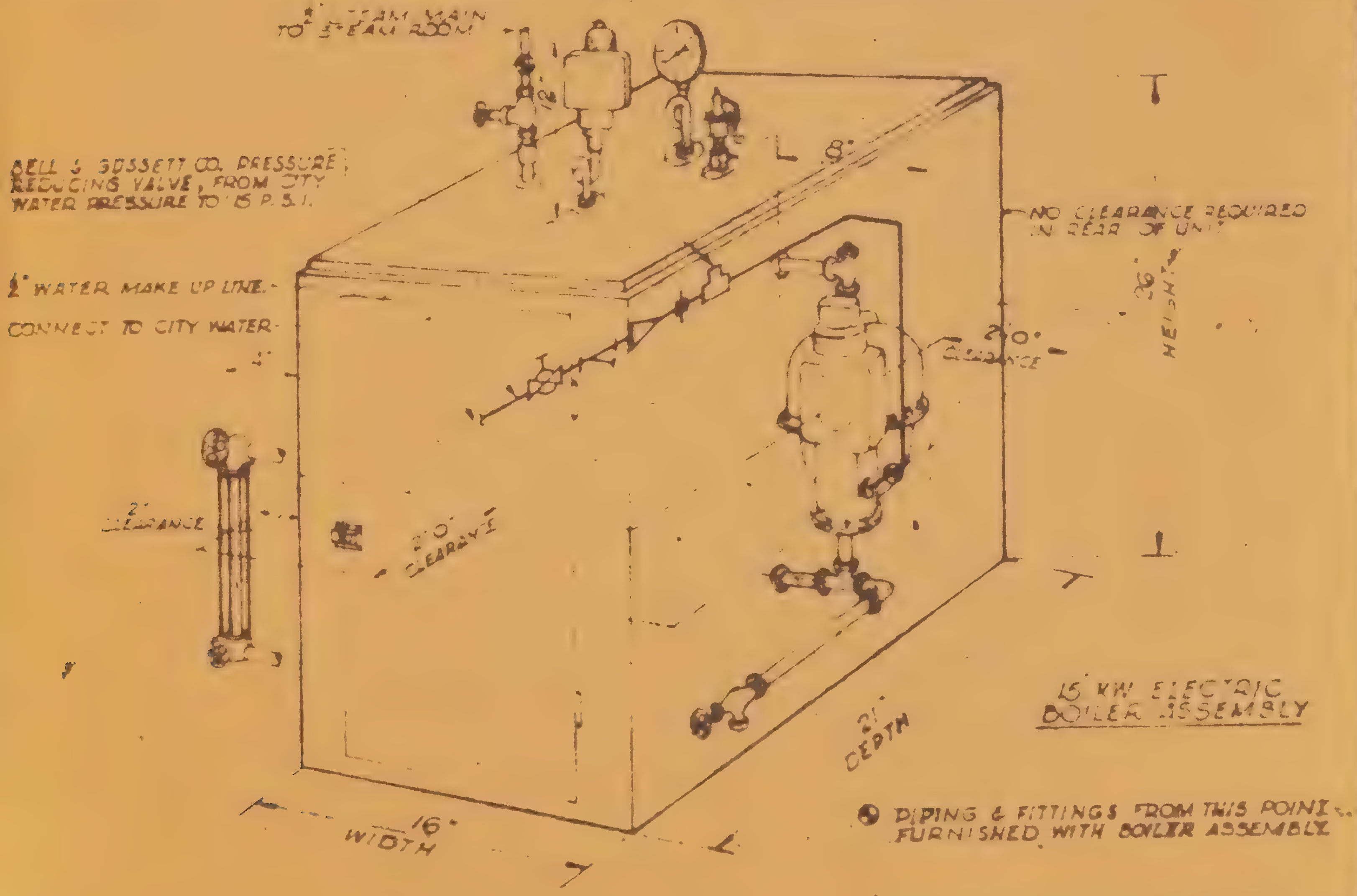

MAIN SUPPLY LINE
GATE VALVE
STRAINER
AUTOMATIC THROTTLING VALVE
(B) SUPPLY
(A)
KEY OPERATED AIR VENT
~~SQUARE HEAD COCK~~
3/4" DRAIN VALVE W/ HOSE CONN.
(C) TO RETURN MAIN

BOOSTER COIL	SIZE COIL A	SUPPLY B	RETURN C
1	18"x15"	1	1
2	18"x15"	1	1
3.	As Req'd.	2"	2"

Office Unit

HOT WATER PIPING CONNECTIONS


PRESSURE CONTROL SET FOR 10 TO 15 LBS.
SINGLE POLE SWITCH
CONTACTOR A & H SIZE 2, 3 POLE
CONNECT SERVICE TO THESE 3 POINTS.
23T-2 McDONNELL & MILLER LOW WATER CUT OFF & FEEDER.
PILOT LIGHT
30 AMP. FUSE BLOCKS
HEATING ELEMENTS


1" STEAM MAIN TO STEAM ROOM
12"
BELL & GOSSETT CO. PRESSURE REDUCING VALVE, FROM CITY WATER PRESSURE TO 15 P.S.I.
8"
NO CLEARANCE REQUIRED IN REAR OF UNIT
½" WATER MAKE UP LINE.
CONNECT TO CITY WATER
2'0" CLEARANCE
36" HEIGHT
2" CLEARANCE
2'0" CLEARANCE
21" DEPTH
16" WIDTH
● PIPING & FITTINGS FROM THIS POINT FURNISHED WITH BOILER ASSEMBLY.

15 KW ELECTRIC BOILER ASSEMBLY

DIAGRAMMATIC ELECTRIC & PIPING CONNECTIONS FOR SELF CONTAINED BOILER FOR STEAM ROOM.

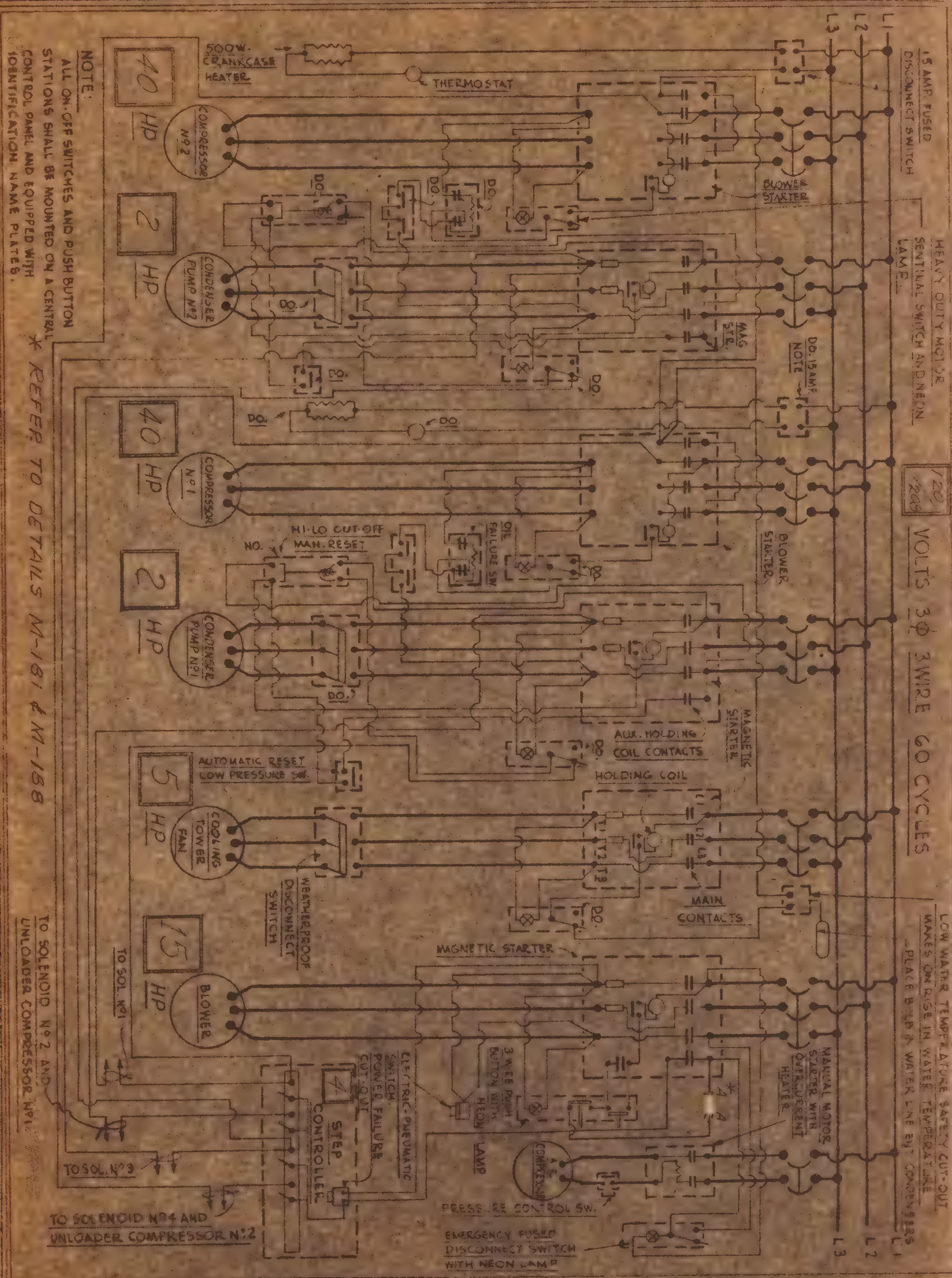
STORE ATHENS, GA.

№ 570

DRAWN BY:
C.A.R. [illegible]-4-59

J.C.PENNEY CO. INC.
REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34TH ST. NEW YORK CITY

DETAIL №
M-238



500W. CRANKCASE HEATER
THERMOSTAT
15 AMP. FUSED DISCONNECT SWITCH
BLOWER STARTER
HEAVY DUTY MOTOR SENTINAL SWITCH AND NEON LAMP
40 HP
COMPRESSOR Nº2
2 HP
CONDENSER PUMP Nº2
D.O.
MAG. STR.
D.O. 15 AMP. NOTE
40 HP
COMPRESSOR Nº1
HI-LO CUT-OFF MAN. RESET
NO.
OIL FAILURE SW.
BLOWER STARTER
120/208 VOLTS 3Φ 3 WIRE 60 CYCLES
2 HP
CONDENSER PUMP Nº1
MAGNETIC STARTER
AUX. HOLDING COIL CONTACTS
HOLDING COIL
AUTOMATIC RESET LOW PRESSURE SW.
5 HP
COOLING TOWER FAN
WEATHERPROOF DISCONNECT SWITCH
MAIN CONTACTS
15 HP
BLOWER
MAGNETIC STARTER
LOW WATER TEMPERATURE SAFETY CUT-OUT MAKES ON RISE IN WATER TEMPERATURE - PLACE BULB IN WATER LINE ENT. CONDENSERS
TO SOLENOID Nº2 AND UNLOADER COMPRESSOR Nº1
TO SOL. Nº1
TO SOL. Nº3
TO SOLENOID Nº4 AND UNLOADER COMPRESSOR Nº2
4 STEP CONTROLLER
ELECTRIC-PNEUMATIC SWITCH POWER FAILURE CUT-OUT
3 WIRE PUSH BUTTON WITH NEON LAMP
MANUAL MOTOR STARTER WITH OVERCURRENT HEATER
A.C. COMPRESSOR
PRESSURE CONTROL SW.
EMERGENCY FUSED DISCONNECT SWITCH WITH NEON LAMP
L1
L2
L3

NOTE:
ALL ON-OFF SWITCHES AND PUSH BUTTON STATIONS SHALL BE MOUNTED ON A CENTRAL CONTROL PANEL AND EQUIPPED WITH IDENTIFICATION NAME PLATES.

* REFER TO DETAILS M-181 & M-188

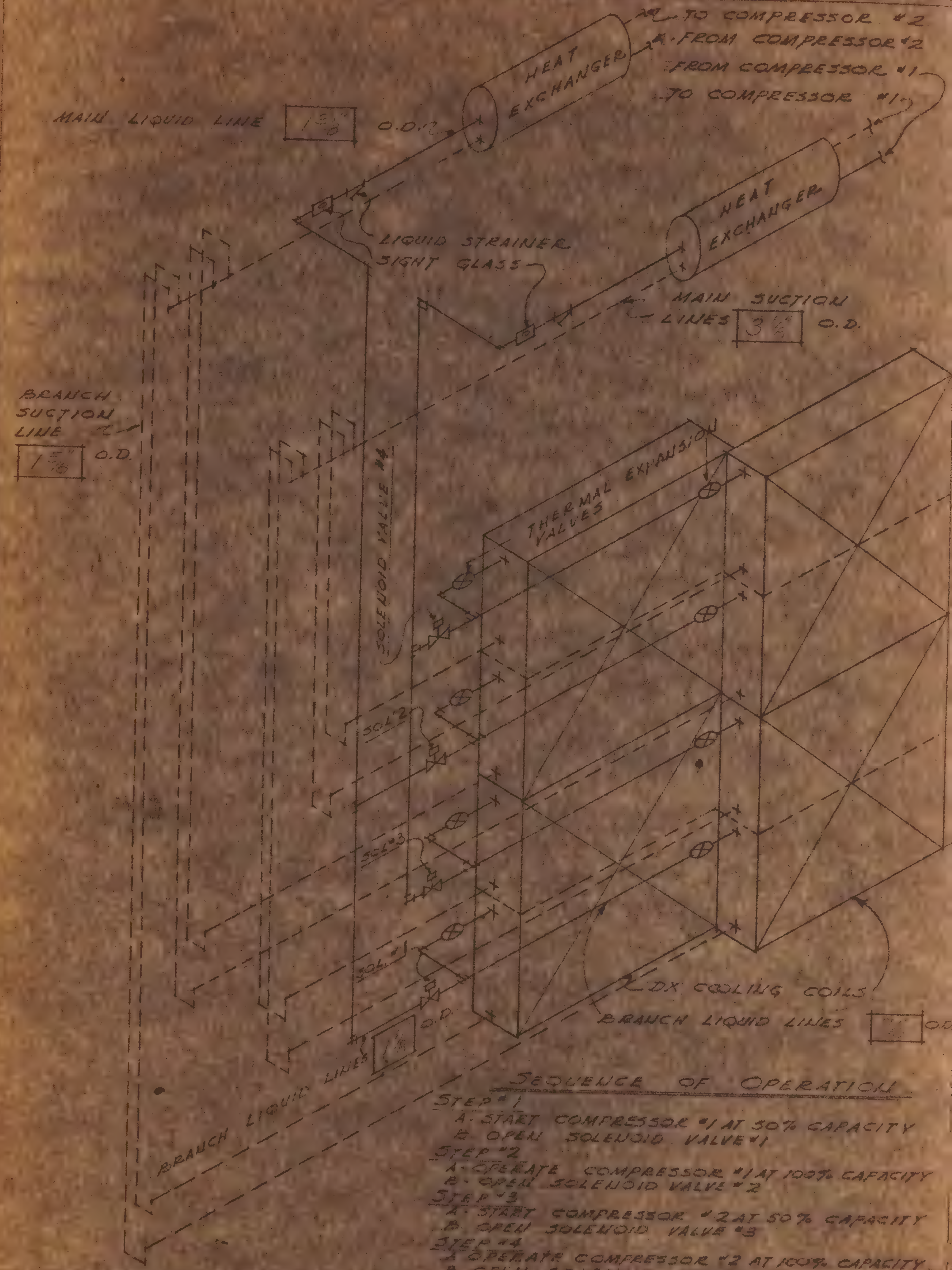
STORE ATHENS, GA. Nº 570

ELECTRIC WIRING DIAGRAM

REDRAWN BY:
S.J.C. 3-5-57

J. C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT - CONSTRUCTION DIVISION
330 WEST 34TH ST. NEW YORK CITY, 1, N.Y.

DETAIL Nº
M239A


TO COMPRESSOR #2
FROM COMPRESSOR #2
FROM COMPRESSOR #1
TO COMPRESSOR #1
HEAT EXCHANGER
HEAT EXCHANGER
MAIN LIQUID LINE 1 3/8" O.D.
LIQUID STRAINER
SIGHT GLASS
MAIN SUCTION LINES 3 1/8" O.D.
BRANCH SUCTION LINE 1 5/8" O.D.
SOLENOID VALVE #4
THERMAL EXPANSION VALVES
SOL #2
SOL #3
SOL #1
1 1/8" O.D.
BRANCH LIQUID LINES
DX COOLING COILS
BRANCH LIQUID LINES 7/8" O.D.

SEQUENCE OF OPERATION

STEP #1
A. START COMPRESSOR #1 AT 50% CAPACITY
B. OPEN SOLENOID VALVE #1
STEP #2
A. OPERATE COMPRESSOR #1 AT 100% CAPACITY
B. OPEN SOLENOID VALVE #2
STEP #3
A. START COMPRESSOR #2 AT 50% CAPACITY
B. OPEN SOLENOID VALVE #3
STEP #4
A. OPERATE COMPRESSOR #2 AT 100% CAPACITY
B. OPEN SOLENOID VALVE #4

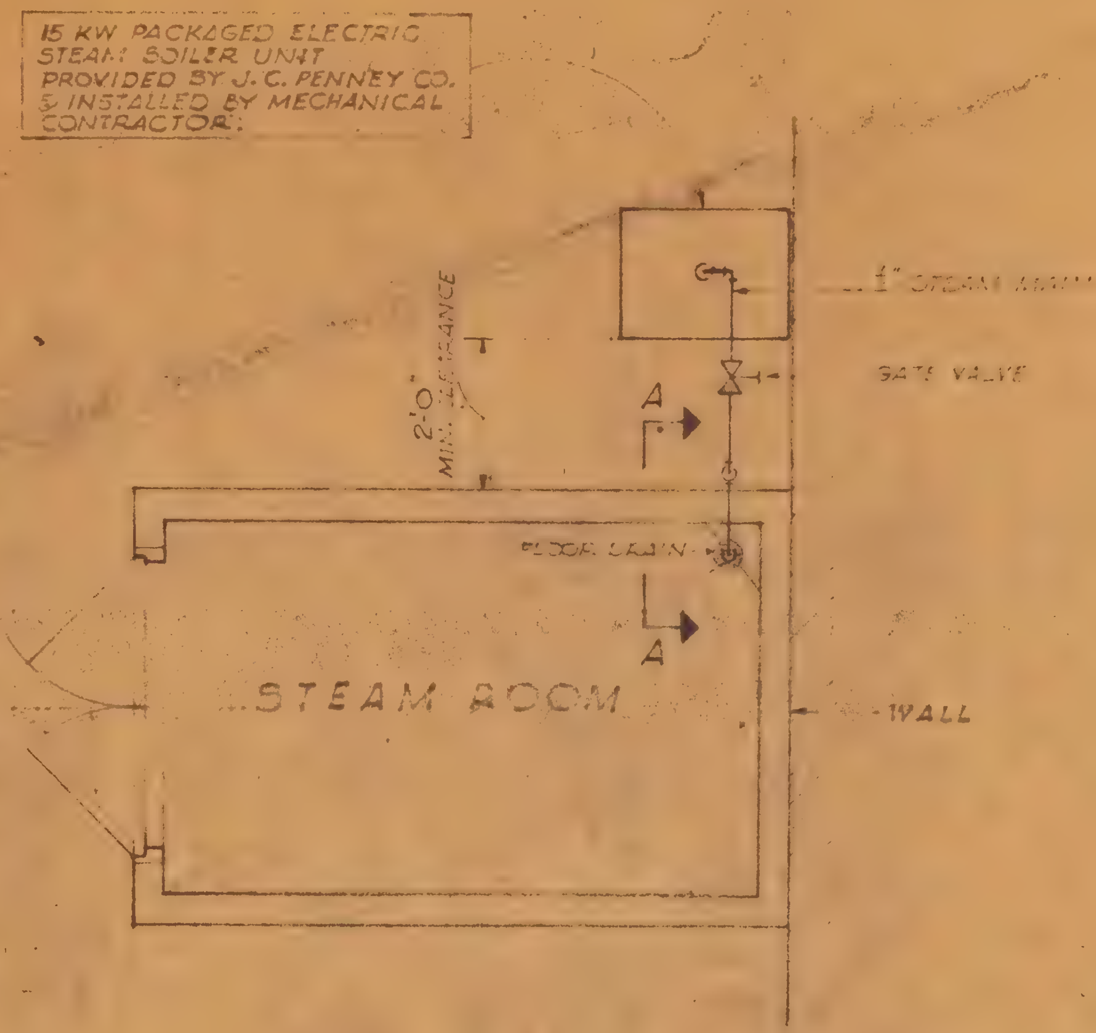
STORE ATLANTA, GA. Nº 570

DIAGRAMMATIC PIPING CONNECTION TO D.X. COILS

REDRAWN BY
M.Z. 5-9-56
REV. 2-25-57 N.A.D

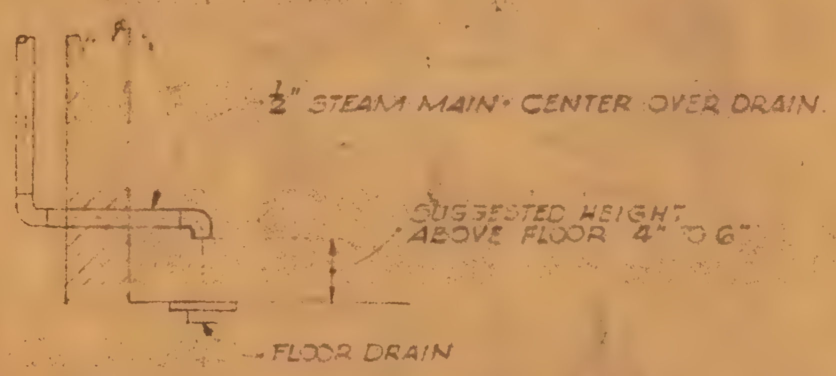
J. C. PENNEY CO. INC.
REAL ESTATE DEPT.
330 W. 34TH STREET
CONSTRUCTION DIV.
NEW YORK, CITY

DETAIL Nº M-246


15 KW PACKAGED ELECTRIC STEAM BOILER UNIT PROVIDED BY J. C. PENNEY CO. & INSTALLED BY MECHANICAL CONTRACTOR.
2'-0" MIN. CLEARANCE
1" STEAM MAIN
GATE VALVE
A
A
FLOOR DRAIN
STEAM ROOM
WALL

NOTE

FLOOR DRAIN & STEAM ROOM BY OTHERS.


½" STEAM MAIN - CENTER OVER DRAIN.
SUGGESTED HEIGHT ABOVE FLOOR 4" TO 6"
FLOOR DRAIN

SECTION A-A

STORE ATHENS, GA. №. 570

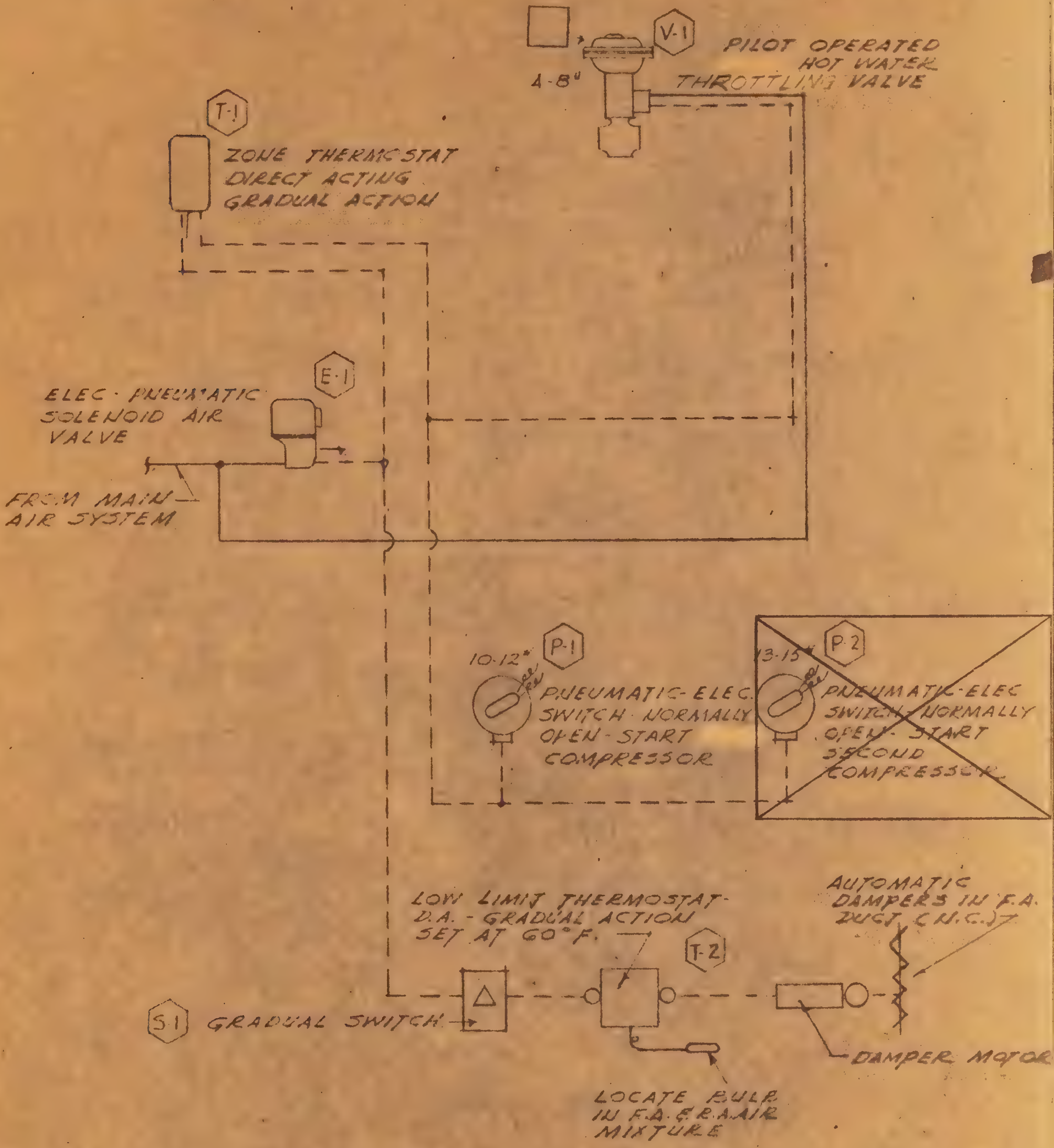
·PIPING CONNECTIONS TO STEAM ROOM·

DRAWN BY:
[illegible]

J.C.PENNEY CO. INC.

·REAL ESTATE DEPARTMENT·
·CONSTRUCTION DIVISION·
330 W. 34TH ST. NEW YORK CITY.

DETAIL №
M-271


V-1
4-8"
PILOT OPERATED HOT WATER THROTTLING VALVE
T-1
ZONE THERMOSTAT DIRECT ACTING GRADUAL ACTION
E-1
ELEC·PNEUMATIC SOLENOID AIR VALVE
FROM MAIN AIR SYSTEM
P-1
10-12"
PNEUMATIC-ELEC. SWITCH NORMALLY OPEN-START COMPRESSOR
~~P-2~~
~~13-15"~~
~~PNEUMATIC-ELEC SWITCH NORMALLY OPEN-START SECOND COMPRESSOR~~
LOW LIMIT THERMOSTAT-D.A.-GRADUAL ACTION SET AT 60°F.
T-2
S-1
GRADUAL SWITCH
AUTOMATIC DAMPERS IN F.A. DUCT (N.C.)
DAMPER MOTOR
LOCATE BULB IN F.A.&R.A. AIR MIXTURE

OFFICE SELF CONTAINED UNIT

STORE: ATHENS, GA. № 570

PNEUMATIC CONTROL SYSTEM

DRAWN BY M.Z. 5-15-56 REV-3-4-57-N.A.D	J. C. PENNEY CO. INC. REAL ESTATE DEPT CONSTRUCTION DIV. 330 W. 34 ST. NEW YORK CITY	DETAIL № M-285A

The operation of the pneumatic control system shown on the J. C. Penney Company, Inc. Standard Detail Drawing No. M-285A is as follows:

When the supply fan is started, E-1 is energized to supply compressed air at 15 lbs. per square inch to S-1 and T-1, placing same into operation. S-1 will allow the outdoor air damper to be placed in any desired position provided the temperature of the air mixture entering the coils is above the setting of low limit thermostat T-2.

Zone thermostat T-1 will control the hot water throttling valve V-1 and the refrigerant cycle in the following manner:

Rising temperature above the setting of zone thermostat T-1 will cause T-1 to gradually increase its branch line pressure to throttling valve V-1. Further rise in temperature above the setting of zone thermostat T-1 after valve V-1 is closed, will then cause T-1 to further increase its branch line pressure to start the refrigeration compressor thru pneumatic-electric switche P-1. Falling zone temperature will reverse the above cycle of refrigeration and valve operation.

The hot water throttling valve shall be pilot operated.

All thermostats and thermostatic elements shall be installed where directed by the J. C. Penney Company, Inc., or where shown on the Mechanical Plans.

Controls shall be as manufactured and installed by the Johnson Service Company, or Minneapolis - Honeywell Regulator Company.

STORE ATHENS, GA. No. 570

DESCRIPTION OF PNEUMATIC CONTROL SYSTEM

DRAWN BY
H.A.D. 5-25-55
S.J.C. 6-3-57

J. C. PENNEY CO. INC.
REAL ESTATE DEPT. CONSTRUCTION DIV.
330 W. 34TH ST. NEW YORK CITY

DETAIL NO.
M285-B

~ ELECTRICAL SYMBOLS ~

CEILING	WALL	DESCRIPTION
⊘→	⊢⊘→	Fan Outlet (600 w.)
Ⓙ	⊢Ⓙ	Junction Box (1200 w. - 8'6" up on wall unless noted)
⊗	⊢⊗	Exit light
Ⓢ	⊢Ⓢ	Sign Outlet (300 w - unless noted)
⊕	⊢⊕	Ceiling: 150 w., Wall: 100w. (6'6" up or as noted)
▭⊕▭		Fluorescent or Slimline units
▭⊕▭▭		Continuous fluor. or slim.

Symbol Letters { W- weatherproof, P- W/ pull chain, S- surface mounted

Suffix Letters { H- suspended, R- recessed

Symbol	Description	
⊖	Duplex Convenience Ceiling Outlet (600 w. except as noted)	
⊢⊖	Duplex Convenience Base Outlet (300 w. - unless noted)	
⊢⊖S	Combination switch & convenience outlet (300 w.)	4'6" Up
⊢⊖Sp	Convenience outlet - switch & pilot light (1200 w.)	
◉	Floor Outlet (400 w. - unless noted)	
⊙▲	Special Purpose Outlet (Describe)	
Ⓜ	Motor Outlet	
⊢◷	Clock Outlet (See Detail E-18)	
◀→	Central Telephone Station - with 3/4" conduit to telephone panel	
☒	Fire Alarm Station F◁ Fire Alarm Horn	
▫---⊐o	Push-Button and Bell	4'6" Up - Unless otherwise noted
⊢S	Single Pole Switch	
⊢S^2	Double Pole Switch	
⊢S^3	Three-way Switch	
⊢S^K	Key Operated Switch	
⊢S^P	Switch and Pilot lamp	
▭┘	Motor Switch	
☒┘	Motor Controller or Circuit Breaker	
■	Lighting Panel	
▨	Power Panel	
A/11	Panel "A" Circuit #11	
⊢⊖E	Emergency Outlet 8'-6" Up (Paint Cover Red)	

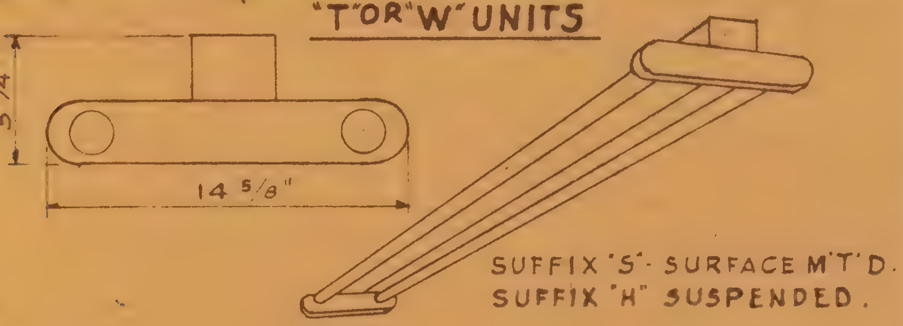
STORE: ATHENS - GEORGIA #570 DATE: 1 SEPT 59

DRAWN BY:-
E.H.K. 3-54
REDRAWN 6-55

J.C. PENNEY CO. INC.
REAL ESTATE DEPT.
330 W. 34 ST. CONSTRUCTION DIV. NEW YORK, N.Y.

DETAIL NO
2
E-11

"T"OR"W" UNITS

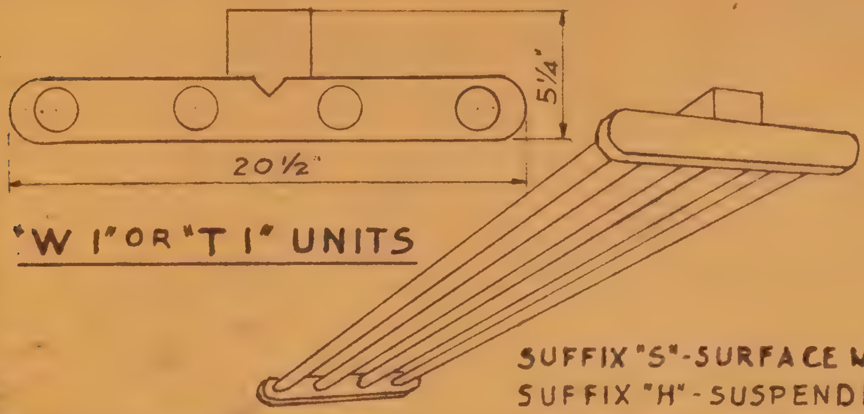


SUFFIX "S" - SURFACE M'T'D.
SUFFIX "H" SUSPENDED.

2-LAMP SLIMLINE BARE LAMP UNITS

4-FOOT S-236	"W"	CONNECTED LOAD 100 WATTS
2-36 W. T-12 - 430 MA LAMPS		
8-FOOT S-275	"T"	CONNECTED LOAD 200 WATTS
2-75 W. T-12 430 MA LAMPS		

"W I" OR "T I" UNITS

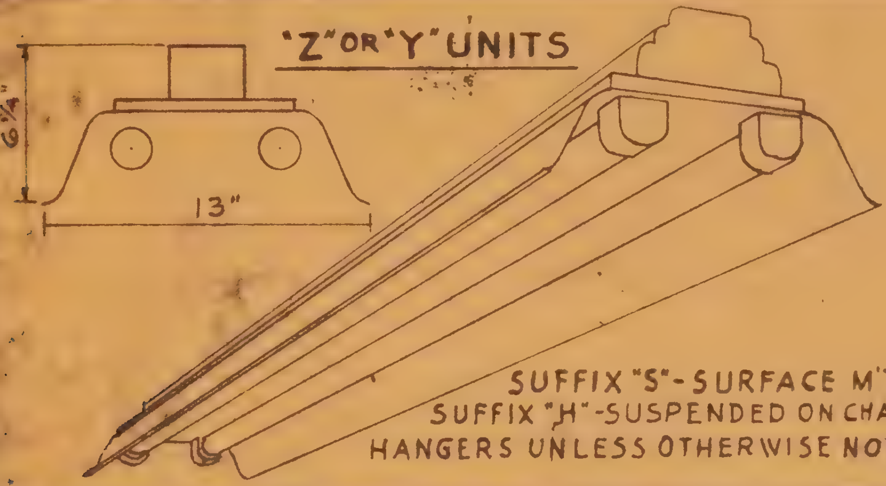


SUFFIX "S" - SURFACE M'T'D.
SUFFIX "H" - SUSPENDED.

4-LAMP SLIMLINE BARE LAMP UNITS

4-FOOT S-436	"W I"	CONNECTED LOAD 200 WATTS
4-36 W. T-12 430 MA LAMPS		
8-FOOT S-475	"T I"	CONNECTED LOAD 400 WATTS
4-75 W. T-12 430 MA LAMPS		

"Z" OR "Y" UNITS

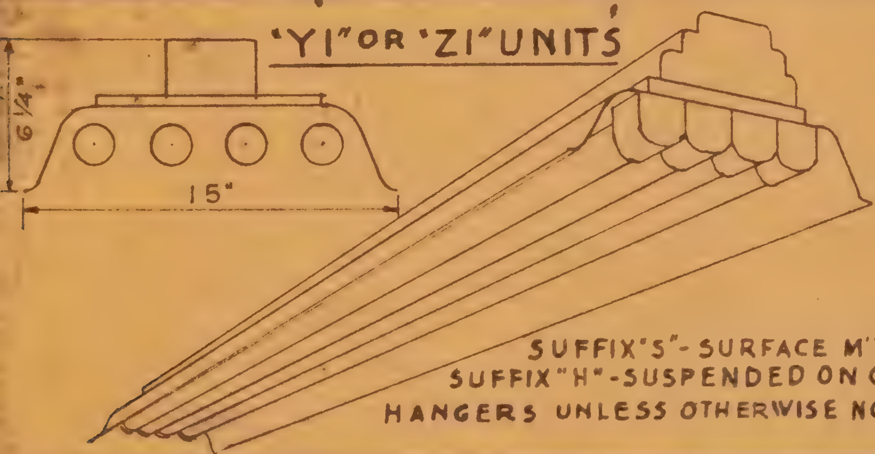


SUFFIX "S" - SURFACE M'T'D.
SUFFIX "H" - SUSPENDED ON CHAIN HANGERS UNLESS OTHERWISE NOTED.

2-LAMP INDUSTRIAL SLIMLINE HOOD TYPE UNITS

4-FOOT SI-236	"Z"	CONNECTED LOAD 100 WATTS
2-36 W. T-12 430 MA LAMPS		
8-FOOT SI-275	"Y"	CONNECTED LOAD 200 WATTS
2-75 W. T-12 430 MA LAMPS		

"Y I" OR "Z I" UNITS



SUFFIX "S" - SURFACE M'T'D.
SUFFIX "H" - SUSPENDED ON CHAIN HANGERS UNLESS OTHERWISE NOTED.

4-LAMP INDUSTRIAL SLIMLINE HOOD TYPE UNITS

4-FOOT SI-436	"Z I"	CONNECTED LOAD 200 WATTS
4-36 W T-12 430 MA LAMPS		
8-FOOT SI-475	"Y I"	CONNECTED LOAD 400 WATTS
4-75 W T-12 430 MA LAMPS		

SYMBOLS	1ST FL	PENT HOUSE								TOTAL	REMARKS
TYPE T-S	2	4								6	
TYPE T-H	1P									1P	MTG. HGT. 9'-6"
TYPE Y-H	2P									2P	MTG. HGT. 7-6
TYPE W-S		1								1	

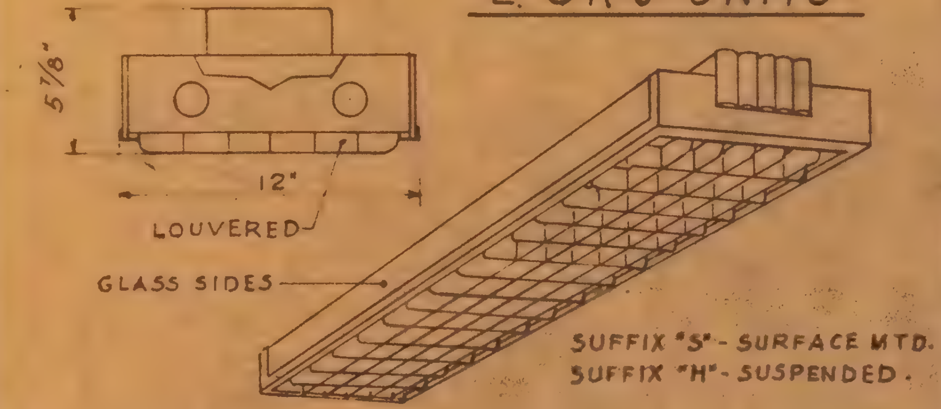
STORE ATHENS - GEORGIA #570 DATE 1 SEPT. 59

DRAWN BY: R.C.K. DEC. '52
REVISED BY: R.C.K. NOV. '53
REDRAWN BY: F.K.K. 12-13-54

J. C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34TH ST. NEW YORK CITY

DETAIL
E-12 2

"L" OR "J" UNITS

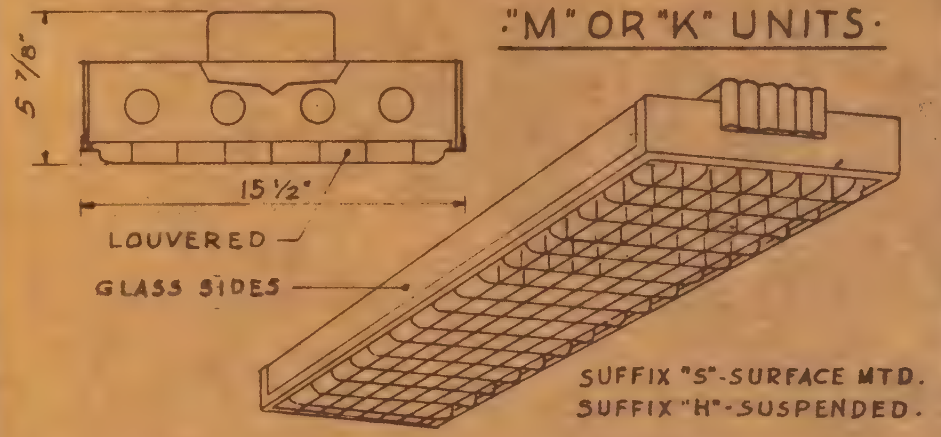


SUFFIX "S" - SURFACE MTD.
SUFFIX "H" - SUSPENDED.

2-LAMP SLIMLINE UNITS

4-FOOT	**"L"**	SLG-236
CONNECTED LOAD 100W 2-36W T-12 430 MA LAMPS		
8-FOOT	**"J"**	SLG-275
CONNECTED LOAD 200W 2-75W T-12 430 MA LAMPS		

"M" OR "K" UNITS



SUFFIX "S" - SURFACE MTD.
SUFFIX "H" - SUSPENDED.

4-LAMP SLIMLINE UNITS

4-FOOT	**"M"**	SLG-436
CONNECTED LOAD 200W 4-36W T-12 430 MA LAMPS		
8-FOOT	**"K"**	SLG-475
CONNECTED LOAD 400W 4-75W T-12 430 MA LAMPS		

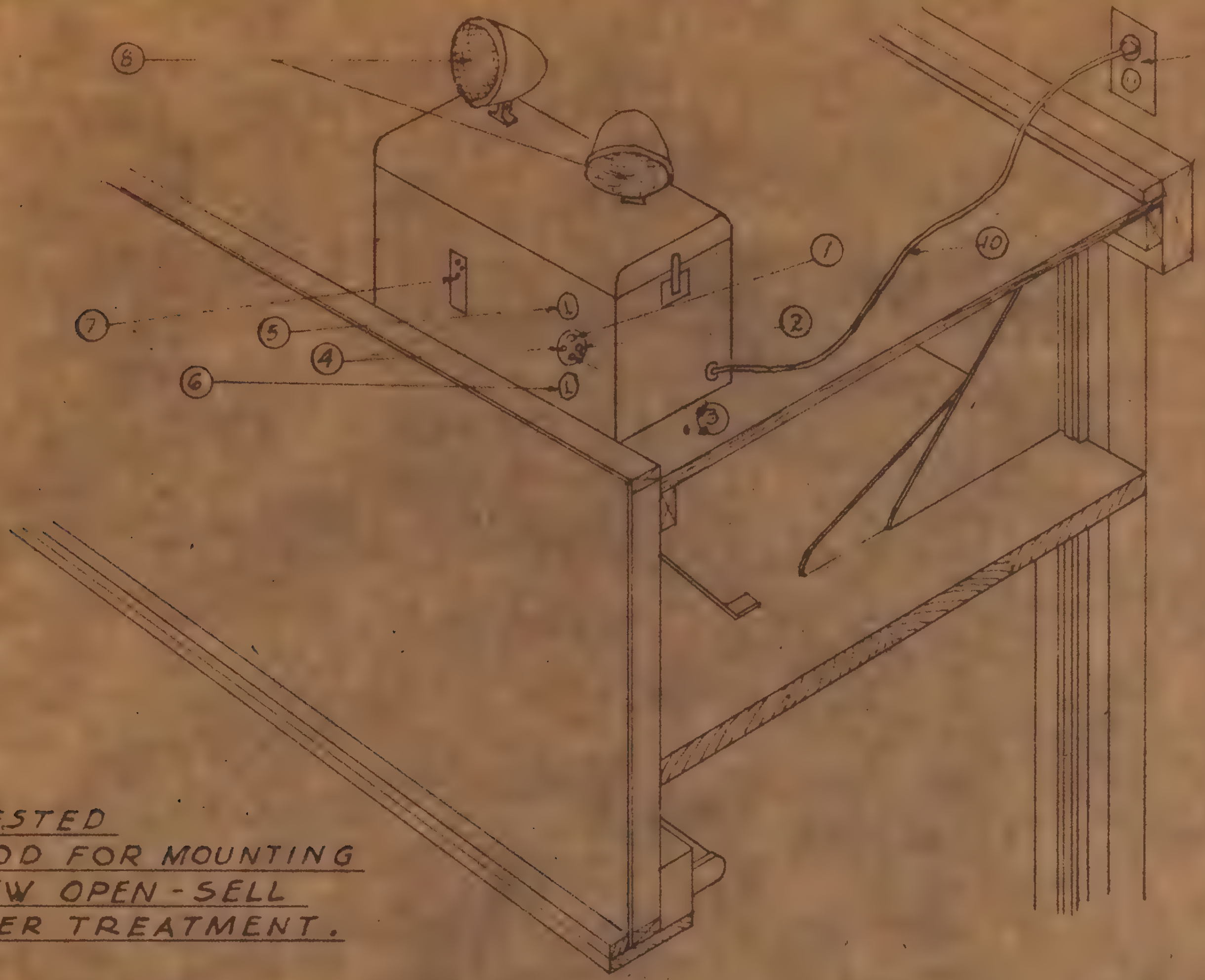
SYMBOLS	BASEM'T	MAIN FLOOR	UNDER BALC'Y	BALC'Y	OFFICE	2ND FLOOR	3RD FLOOR	4TH FLOOR	5TH FLOOR	TOTAL	REMARKS
J·S ⊕					3+3P					3+3P·6	
2 J·S ⊕											
⊕											
J·H ⊕ SUSPEND											
2 J·H ⊕											
⊕											
K·S ⊕											
2 K·S ⊕											
⊕											
K·H ⊕ SUSPEND											
2 K·H ⊕											
⊕											
L·S ⊕					3+2P					3+2P·5	
L·H ⊕											
M·S ⊕											
M·H ⊕ SUSPEND											
2-L·S ⊕					1P					1P	
J·L·H ⊕											
K·M·S ⊕											
K·M·H ⊕											

STORE ATHENS - GEORGIA #570 DATE 1 SEPT. 59

DRAWN BY:
R.C.K. DEC. '52
REVISED BY:
E.H.K. JUNE '54
REDRAWN BY:
F.K.K. 10-27-54

J. C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34TH ST. NEW YORK CITY

E-13^{1}



SUGGESTED METHOD FOR MOUNTING ON NEW OPEN-SELL HEADER TREATMENT.

DO NOT SCALE

· AUTOMATIC EMERGENCY LIGHTING UNIT ·

EMERGENCY LIGHTING UNITS SHOULD BE CONNECTED TO OUTLETS SPECIFICALLY INDICATED FOR THE EMERGENCY LIGHTING OR OTHER CONVENIENCE OUTLETS NOT NORMALLY DE-ENERGIZED, SUCH AS CLOCK CIRCUITS.

①— *PILOT LIGHT INDICATES UNIT IS IN STAND-BY STATUS, READY FOR OPERATION.*

②— *ON-OFF SWITCH DISCONNECTS UNIT FROM CIRCUIT AND MAKES IT INOPERABLE.*

③— *MOMENTARY PUSH-TO-TEST SWITCH WILL INDICATE IF UNIT IS IN WORKING ORDER. (CHECK NOT LESS THAN EVERY 2 WEEKS)*

④— *GLASS FUSE FOR OVERLOAD AND SHORT-CIRCUIT PROTECTION OF UNIT (SPARE FUSES ON INSIDE COVER)*

⑤— *HIGH-CHARGE AMMETER INDICATES CHARGE RATE (3 AMP.) AFTER EACH USE OF LIGHTING UNITS.*

⑥— *LOW-CHARGE (TRICKLE CHARGE) AMMETER INDICATES CHARGE RATE DURING NORMAL STAND-BY STATUS.*

⑦— *BATTERY HYDROMETER WINDOW SHOWS CHARGE OF BATTERY. ALL DISCS SHOULD BE AT TOP OF WINDOW FOR MAXIMUM CHARGE AND WATER LEVEL. WATER LEVEL SHOULD BE CHECKED NOT LESS THAN ONCE PER MONTH.*

⑧— *Nº 4013 SEALED BEAM LIGHT, 25 W.*

⑨— *150 V. 60 CY. A.C. STANDARD CONVENIENCE OUTLET (COVER PAINTED RED)*

⑩— *5 FT. EXTENSION CORD TO OUTLET.*

SYMBOL	BASEMENT	FIRST FLOOR	UNDER BALCONY	BALCONY	SECOND FLOOR		TOTAL	REMARKS
⊖ E	2	3					5	

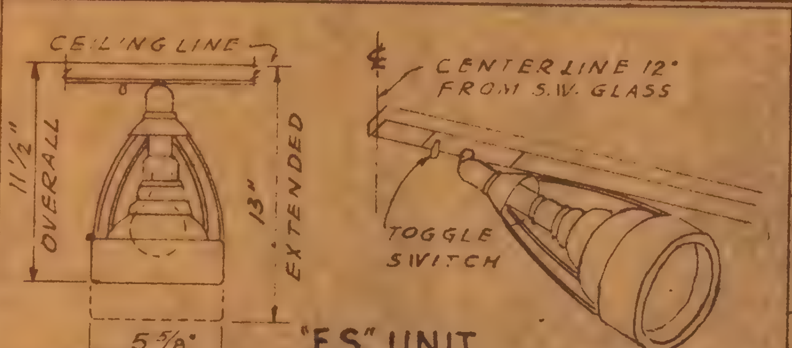
STORE: ATHENS - GEORGIA #570 DATE: 1 SEPT. '59

DRAWN BY:
F.K.K. 1-21-55

J.C. PENNEY CO. INC.
·REAL ESTATE DEPARTMENT·
·CONSTRUCTION DIVISION·
330 W. 34TH ST. NEW YORK CITY·

DETAIL
E-14

NOTE: INSTALL WITH LAMP STOP TOWARD GLASS LINE.


CEILING LINE
11 1/2" OVERALL
13" EXTENDED
5 5/8"
℄
CENTERLINE 12" FROM S.W. GLASS
TOGGLE SWITCH

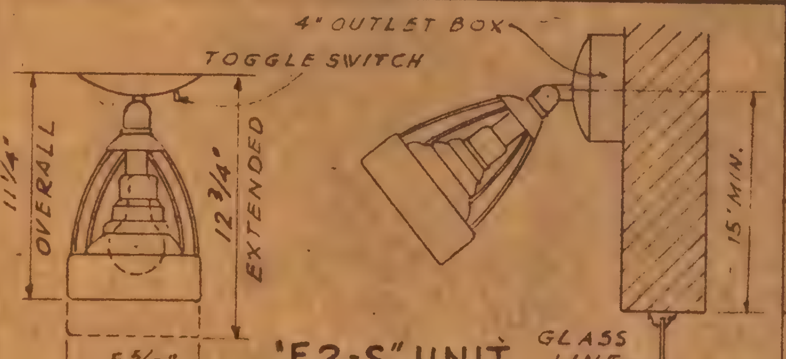
"FS" UNIT

INCANDESCENT SPOTLITE SWIVELIER UNIT WITH G.E.-150 W. A-23 SHORT NECK-CLEAR LAMP & MIROFLECTOR NO-853

CATALOG NUMBER F-643

"F-S"

MOUNT TO WIREMOLD NO-2100


4" OUTLET BOX
TOGGLE SWITCH
11 1/4" OVERALL
12 3/4" EXTENDED
15' MIN.
GLASS LINE
5 5/8"

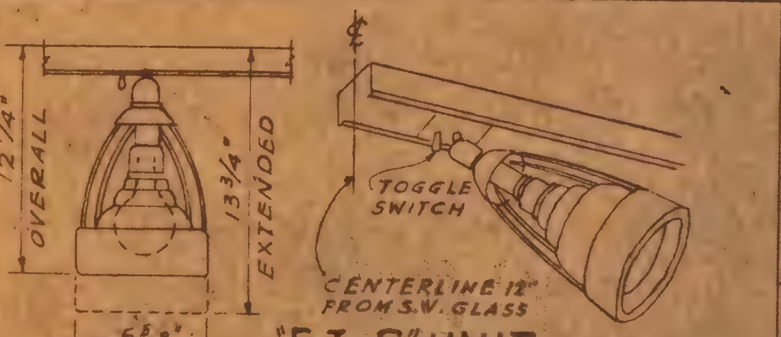
"F2-S" UNIT

INCANDESCENT SPOTLITE SWIVELIER UNIT WITH G.E.-150 W. A-23 SHORT NECK-CLEAR LAMP & MIROFLECTOR NO-853

CATALOG NUMBER F-835

"F2-S"

MOUNT TO OUTLET BOX ONLY


℄
12 1/4" OVERALL
13 3/4" EXTENDED
TOGGLE SWITCH
CENTERLINE 12" FROM S.W. GLASS
5 5/8"

"F3-S" UNIT

INCANDESCENT SPOTLITE SWIVELIER UNIT WITH G.E.-150 W. A-23 SHORT NECK-CLEAR LAMP & MIROFLECTOR NO. 853

CATALOG NUMBER F-894

"F3-S"

MOUNT TO CURTIS-STRIP

SYMBOLS	SHOW WIND #1	SHOW WIND #2	SHOW WIND #3	SHOW WIND #4	BASEMENT	1ST FL.	PENT HOUSE			TOTAL	REMARKS
FS	12	15	38	38						103	
F2-S											
F3-S											
C-S					55	91				146	NULITE STANDARD # SPL-44-1040RS. 10 2/40 F40 T12 & PLASTIC
C1-S						4				4	SAME AS TYPE C-S EXCEPT 2 FT SQ W/ 6-20W. TUBES.
I					1+1P	1+19P	5+1P			7+20P	BRYANT #5228 KEYLESS OR #5288 W/P.C.-150 W. LAMP EXCEPT NOTED
I1						3P	3P			6P	SAME AS TYPE I EXCEPT WALL MTD. AT 6'-6" W/100W. LAMP
O					2	3	1			6	P&S #AL2437 GLASS & AL2204 FITTER - 200W. LAMP
Q							3			3	CROUSE-HINDS #ARB-33 100W. LAMP
Q1					1P	1P	3			3+2P=5	CROUSE-HINDS #VGR-116 MTD AT 6'-6"-100W. LAMP
R						1				1	BENJAMIN #9642 - 150W. LAMP
X					1	2	2			5	SOLAR LIGHT CO. #3437 - WITH TWO 75 W. LAMPS
X1					1	1+1P	2			4+1P=5	PRESCOLITE #WB-24 100W. LAMP - W/PC SW. WHERE INDICATED

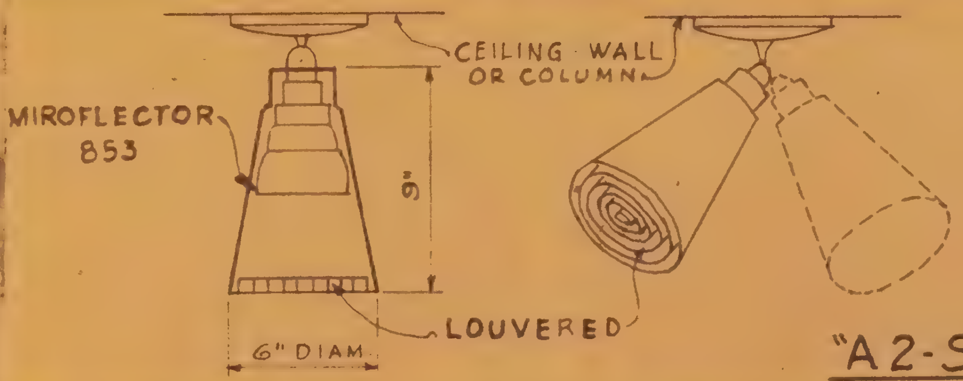
STORE- ATHENS - GEORGIA #570

DATE- 1 SEPT. 59

DRAWN BY:
R.C.K. DEC. '52
REV. DEC. '54 E.H.K
REDRAWN: F.K.K
12-22-54.

J. C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34TH ST. NEW YORK CITY

DETAIL
E-15


CEILING WALL OR COLUMN
MIROFLECTOR 853
9"
LOUVERED
6" DIAM.

"A-S"

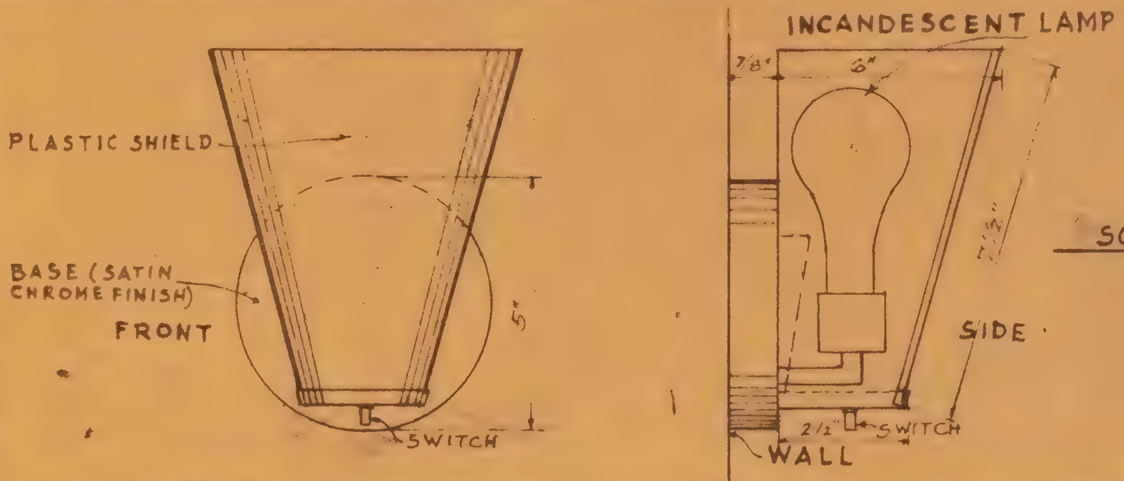
SWIVELIER · 6181

WITH G.E. 150W. A-23 SHORT
NECK CLEAR LAMP AND
MIROFLECTOR NO 853

"A2-S"

SWIVELIER - 6182

DOUBLE UNIT

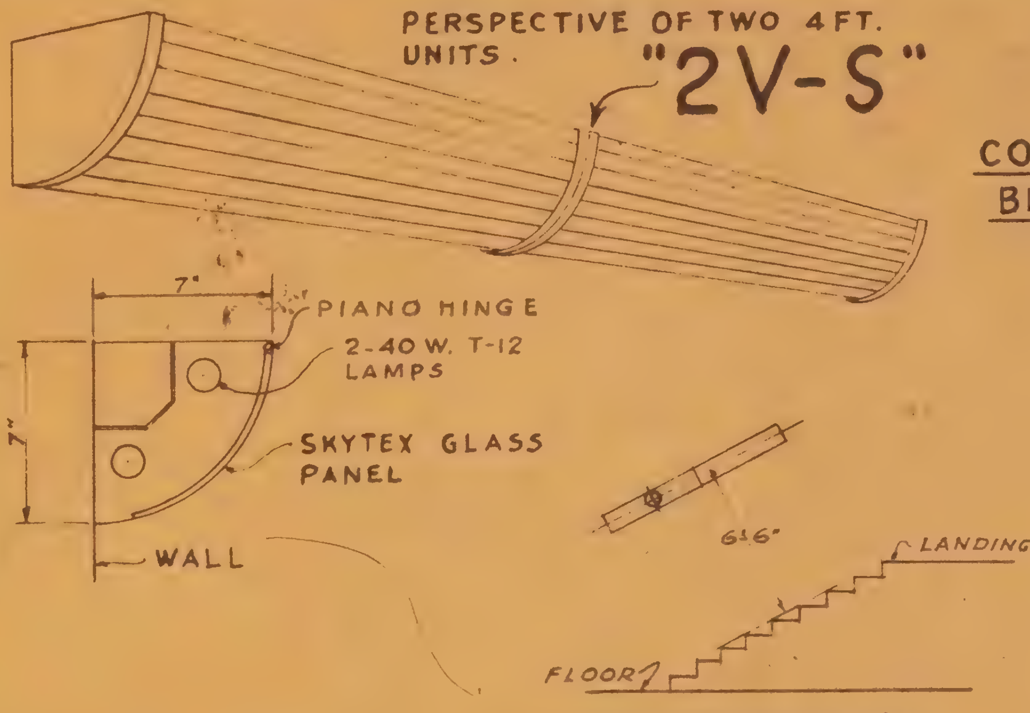

INCANDESCENT LAMP
PLASTIC SHIELD
BASE (SATIN CHROME FINISH)
FRONT
5"
SWITCH
7/8"
8"
11 1/2"
SIDE
2 1/2"
SWITCH
WALL

"B-S"

6'-6" UP

100 WATT
UNLESS NOTED

SOLUX NO. 1132 Y


PERSPECTIVE OF TWO 4FT. UNITS.
"2V-S"
7"
PIANO HINGE
2-40 W. T-12 LAMPS
7"
SKYTEX GLASS PANEL
WALL
6'-6"
LANDING
FLOOR

· MOUNTING DETAIL ·

"V-S"

COVE STAIR LIGHT
BIRCHALL B-4168
(4 FOOT)

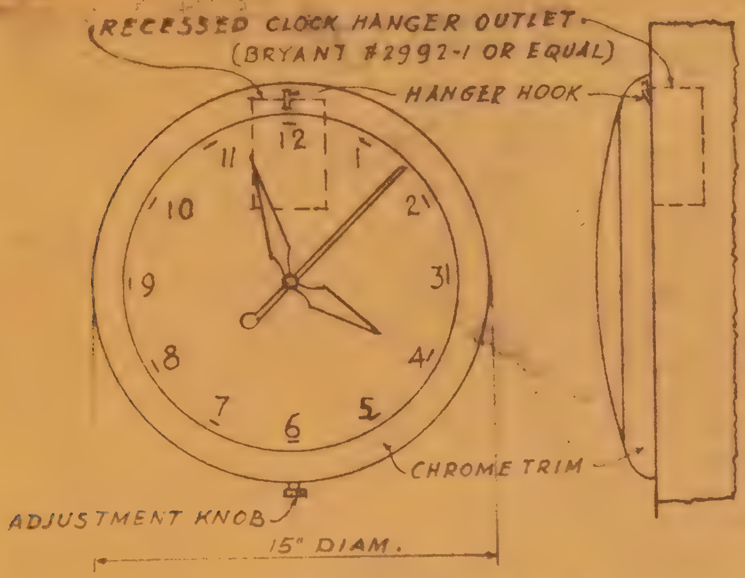
SYMBOLS	BASE MENT	1 ST FL.	PENT HOUSE					ADD'L UNITS REQ D		TOTAL	REMARKS
⊕ A-S	9	8								17	WALL MTD. AT 11-6 EXCEPT AS NOTED
⊕ A2-S	4	3								7	
⊕ B-S	3	15								18	
V-S											
2V-S											

STORE · ATHENS GEORGIA NO. 570 DATE - 1 SEPT. 59

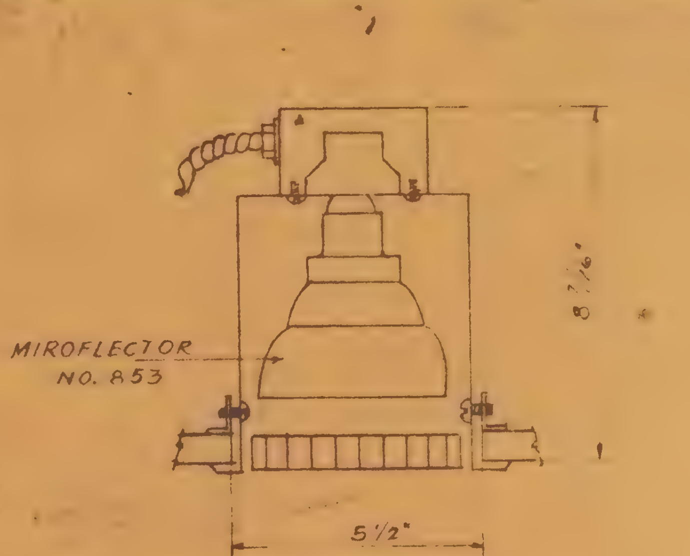
DRAWN BY:
R.C.K. DEC '52
REV. NOV. '53. R.C.K.
REDRAWN: 1-4-55.
BY F.K.K.
REV. 5-13-57. F.K.K.

J. C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT ·
CONSTRUCTION DIVISION
330 W. 34TH ST. NEW YORK CITY ·

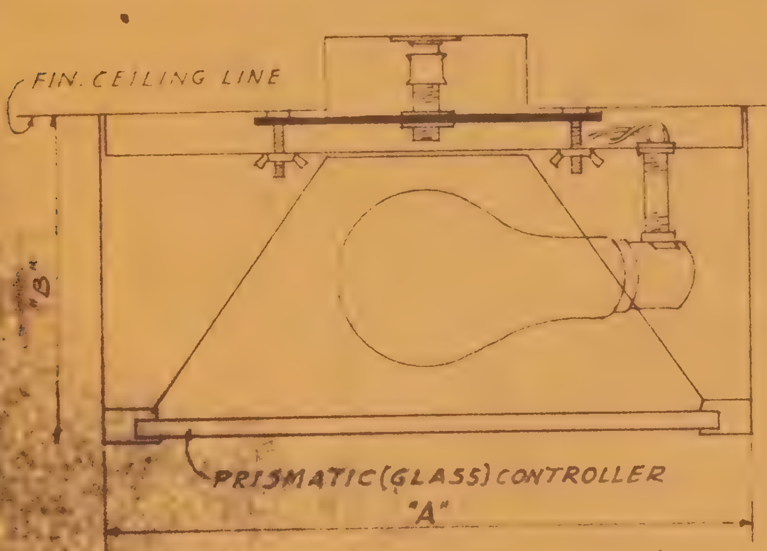
DETAIL
E-16¹

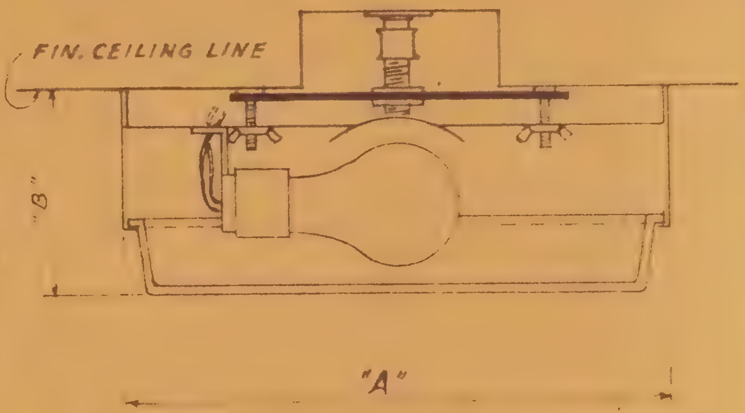

RECESSED CLOCK HANGER OUTLET
(BRYANT #2992-1 OR EQUAL)
HANGER HOOK
12
1
2
3
4
5
6
7
8
9
10
11
CHROME TRIM
ADJUSTMENT KNOB
15" DIAM.

SETH THOMAS
TYPE "MANAGER 12-B"
ELECTRIC CLOCK


MIROFLECTOR NO. 853
8 7/16"
5 1/2"

"D - R"
SWIVELIER NO. 811
WITH G.E. 150W. A-23 SHORT NECK.
CLEAR LAMP AND MIROFLECTOR NO. 853.


FIN. CEILING LINE
"B"
PRISMATIC (GLASS) CONTROLLER
"A"


FIN. CEILING LINE
"B"
"A"

SYMBOL	SOLUX NO.	I.F. LAMP	DIMENSIONS	
			A	B
N-S	1102 YJ	100-150W	9 1/2" SQ.	5"
N1-S	1103 YJ	200-300W	13" SQ.	6 1/2"

SYMBOL	SOLUX NO.	I.F. LAMP	DIMENSIONS	
			A	B
G-S	1130Y-SS	100-150W	10" SQ.	5"
G1-S	1131 Y-SS	200-300W	12 1/2" SQ.	6"

SYMBOLS	BASEMENT	1ST FL.	PENT HOUSE						TOTAL	REMARKS
CLOCK	1	1							2	
D-R										
G-S										
G1-S	5	4							9	
N-S										
N1-S										

STORE - ATHENS - GEORGIA NO. 570 DATE - 1 SEPT. 59

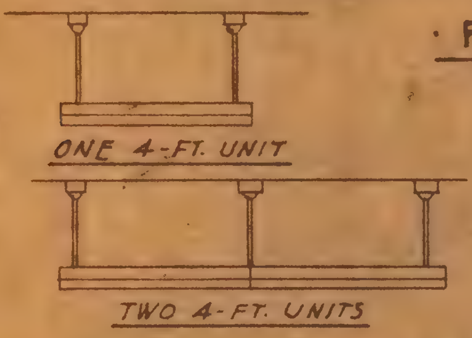
REVISED & REDRAWN
BY F.K.K. 5-8-57

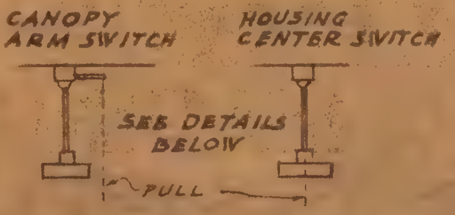
J.C. PENNEY CO. INC.
REAL ESTATE DEPARTMENT
CONSTRUCTION DIVISION
330 W. 34TH ST. NEW YORK CITY.

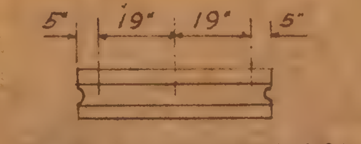
DETAIL
E-18 3

· HANGING DIAGRAMS ·

· FOR ALL 4-FT. SUSPENDED UNITS ·
(TYPE SLG ONLY)

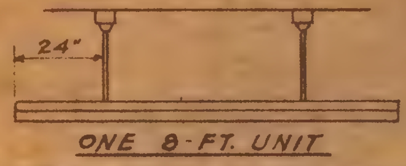

ONE 4-FT. UNIT
TWO 4-FT. UNITS

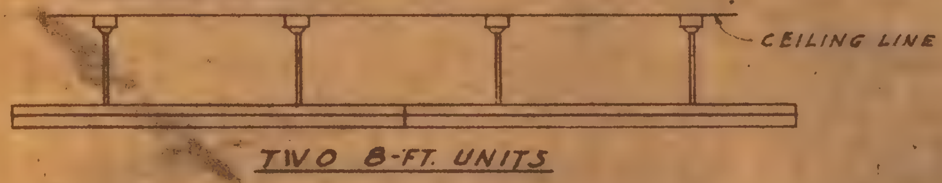

CANOPY ARM SWITCH
HOUSING CENTER SWITCH
SEE DETAILS BELOW
PULL

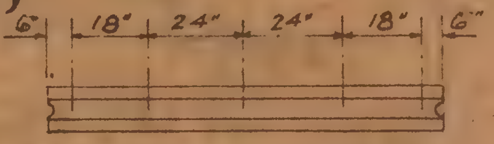


PLAN OF KNOCKOUTS

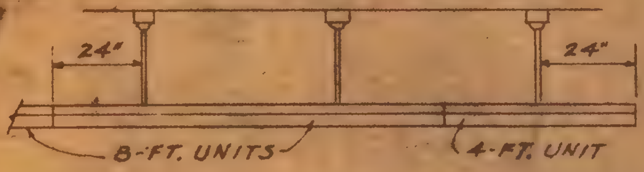
· FOR ALL 8-FT. SUSPENDED UNITS ·
(TYPE SLG ONLY)


24"
ONE 8-FT. UNIT

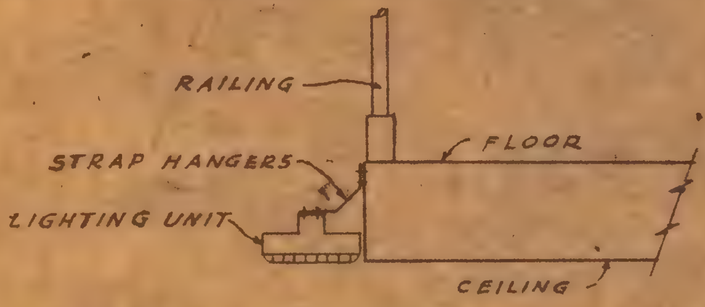

CEILING LINE
TWO 8-FT. UNITS


6"
18"
24"
24"
18"
6"

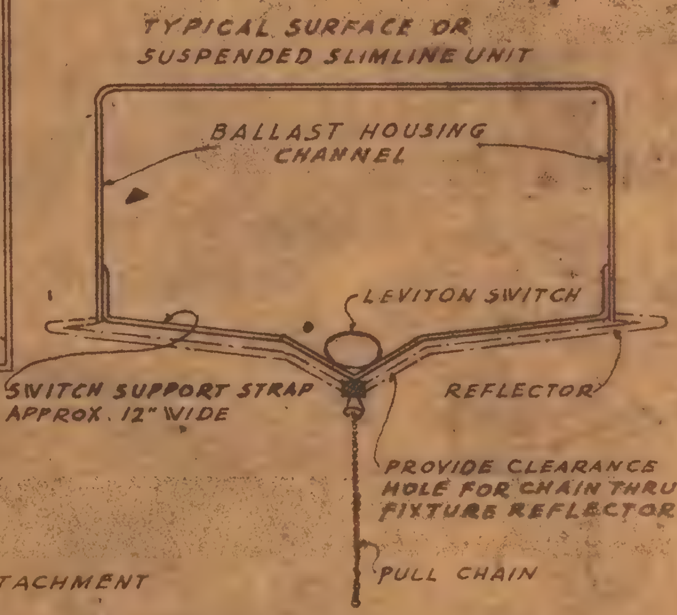
PLAN OF KNOCKOUTS


24"
24"
8-FT. UNITS
4-FT. UNIT

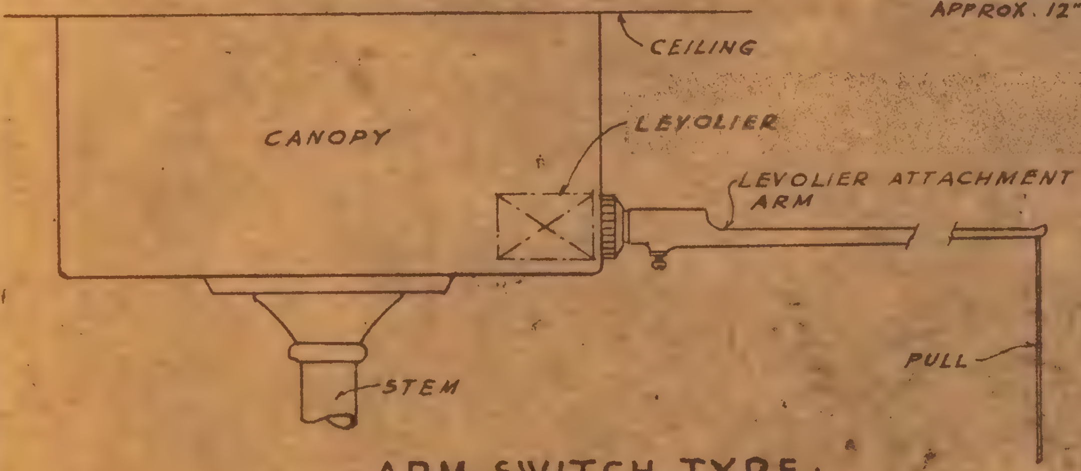
· COMBINATION 4-FT. UNIT WITH 8-FT. UNIT ·
(SUSPENDED)


RAILING
STRAP HANGERS
FLOOR
LIGHTING UNIT
CEILING

MOUNTING AT WELL (ON FLOOR FASCIA) ·


TYPICAL SURFACE OR SUSPENDED SLIMLINE UNIT
BALLAST HOUSING CHANNEL
LEVITON SWITCH
SWITCH SUPPORT STRAP APPROX. 1/2" WIDE
REFLECTOR
PROVIDE CLEARANCE HOLE FOR CHAIN THRU FIXTURE REFLECTOR.
PULL CHAIN

CENTER SWITCH TYPE


CEILING
CANOPY
LEVOLIER
LEVOLIER ATTACHMENT ARM
STEM
PULL

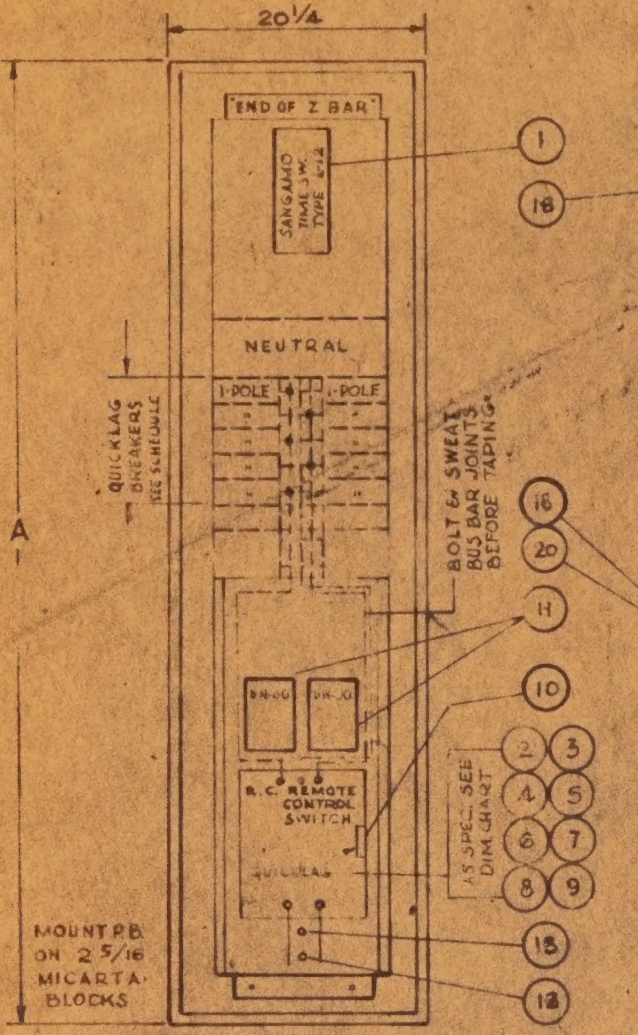
· ARM SWITCH TYPE ·

STORE: ATHENS-GEORGIA #570 DATE: 1 SEPT 59

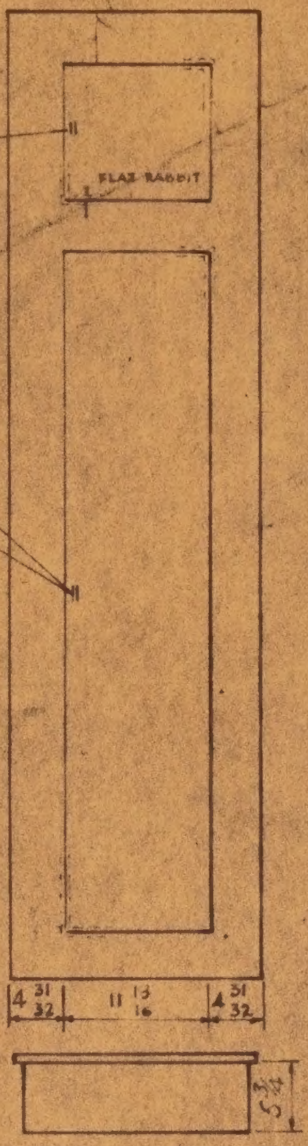
DRAWN BY: R.C.K.
E.H.K. JAN. 53.
REDRAWN BY: F.K.K.
APR. 26-55.
REV. OCT. 3. '57. F.K.K.

J. C. PENNEY CO. INC.
· REAL ESTATE DEPARTMENT ·
· CONSTRUCTION DIVISION ·
330 W. 34TH ST. · NEW YORK CITY ·

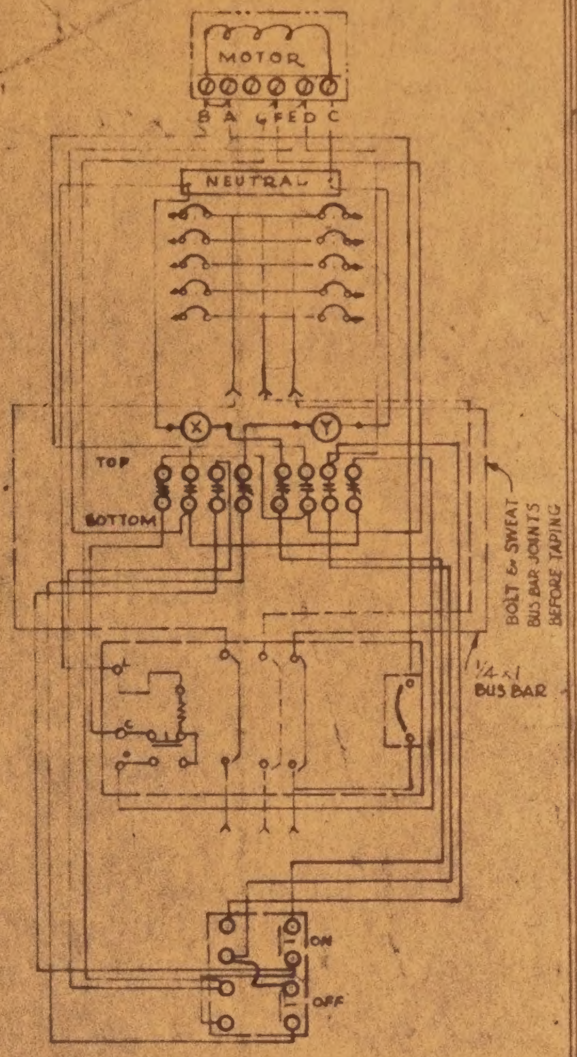
DETAIL NO.
E-19²


20 1/4
END OF Z BAR
SANGAMO TIME SW. TYPE L-12
NEUTRAL
1-POLE
1-POLE
QUICKLAG BREAKERS SEE SCHEDULE
A
BOLT & SWEAT BUS BAR JOINTS BEFORE TAPING
DH-00
DH-00
R.C. REMOTE CONTROL SWITCH
QUICKLAG
AS SPEC. SEE DIM. CHART
MOUNT P.B. ON 2 5/16 MICARTA BLOCKS
1
18
16
20
11
10
2
3
4
5
6
7
8
9
13
12

·BOX & BOTTOM PAN DETAIL·


FLAT RABBIT
4 31/32
11 13/16
4 31/32
5 3/4

·TRIM DETAIL·


MOTOR
B A G F E D C
NEUTRAL
X
Y
TOP
BOTTOM
BOLT & SWEAT BUS BAR JOINTS BEFORE TAPING
1/4 x 1 BUS BAR
ON
OFF

·WIRING DIAGRAM·

REFERENCE·
WESTINGHOUSE PANELBOARD
HEADQUARTERS Nº NA-1A015-6

MAIN LUGS

CIRCUITS		1 Φ 3-WIRE			3 Φ 4-WIRE		
	1-POLE QUICKLAG BREAKERS	MAINS	R/C SW. 2-POLE	A	MAINS	R/C SW. 3-POLE	A
	4	60A.	1T.-2	57 3/4	30A.	1T-6	57 3/4
	8			60 1/2	60 A.	1T.-7	60 1/2
	12	100A	1T.-3	60 1/2			60 1/2
	16	150A	1T-4	63 1/4	100A.	1T.-8	63 1/4
	20			66			66
	24	200A.	1T.-5	66			66
	28			68 3/4			68 3/4
	32			71 1/2	200A.	1T.-9	71 1/2
	36			74 1/4			74 1/4
	40			74 1/4			74 1/4
	42			77			77

MAIN BREAKER

	4	50A. 2P. "F" FRAME	1T.-2	71 1/2	50A. 3P. "F" FRAME	1T.-6	71 1/2
	8			74 1/4		1T.-7	74 1/4
	12	100A. 2P. "F" FRAME	1T.-3	74 1/4			74 1/4
	16	150A. 2P. "K" FRAME	1T.-4	82 1/2	100A. 3P. "F" FRAME	1T.-8	77
	20			85 1/4			79 3/4
	24	200A 2P. "K" FRAME	1T.-5	85 1/4			79 3/4
	28			88			82 1/2
	32			90 3/4	200A. 3P. "K" FRAME	1T.-9	90 3/4
	36			93 1/2			93 1/2
	40			93 1/2			93 1/2
	42			96 1/4			96 1/2

1 Φ 3 WIRE
3 Φ 4 WIRE

ITEM #	DESCRIPTION	STYLE #	GROUP 1	GROUP 2
1	SANGAMO TIME SW. "L-12" 35A. 1P. DOUBLE THROW 120V. 60~		1	1
2	REMOTE CONTROL SW. TYPE "RC" BULLETIN 920 ELECT. OPER. MECH. HELD 110/220V. A.C. 2P. 60 AMP.	CAT. #922 ASCO	SEE TABLE	SEE TABLE
3	REMOTE CONTROL SW. TYPE "RC" BULLETIN 920 ELEC. OPER. MECH. HELD 110/220V. A.C. 2P. 100 AMP.	CAT. #9201 ASCO	SEE TABLE	SEE TABLE
4	REMOTE CONTROL SW. TYPE "RC" BULLETIN 920 ELEC. OPER. MECH. HELD 110/220V. A.C. 2P. 150 AMP.	CAT. # 9202 ASCO	SEE TABLE	SEE TABLE
5	REMOTE CONTROL SW. TYPE "RC" BULLETIN 920 ELEC. OPER. MECH. HELD 110/220V A.C. 2P. 200 AMP.	CAT. #9203 ASCO	SEE TABLE	SEE TABLE
6	REMOTE CONTROL SW. TYPE "RC" BULLETIN 920 ELEC. OPER. MECH. HELD 120/208Y. A.C. 3P. 30 AMP.	CAT. #925 ASCO	SEE TABLE	SEE TABLE
7	REMOTE CONTROL SW. TYPE "RC" BULLETIN 920 ELEC. OPER. MECH. HELD 120/208Y. A.C. 3P. 60 AMP.	CAT. #926 ASCO	SEE TABLE	SEE TABLE
8	REMOTE CONTROL SW. TYPE "RC" BULLETIN 920 ELEC. OPER. MECH. HELD 120/208Y. A.C. 3P. 100 AMP.	CAT. #9204 ASCO	SEE TABLE	SEE TABLE
9	REMOTE CONTROL SW. TYPE "RC" BULLETIN 920 ELEC. OPER. MECH. HELD 120/208Y. A.C. 3P. 200 AMP.	CAT. #[illegible] ASCO	SEE TABLE	SEE TABLE
10	QUICKLAG 15A. 1P. 125 V. A.C.	1419812	1	1
11	TYPE NH RELAY		2	2
12	HD PUSHBUTTON (RED)	1032881	1	1
13	HD PUSHBUTTON (BLACK)	1032888	1	1
14	N.P. (ON)	28122	1	1
15	N.P. (OFF)	28123	1	1
16	CATCH	K-70121	1	1
17	KNOB	K-77513	1	1
18	LOCK	K-80133	2	2
19	HINGE	K-72696	2	2
20	COMB. LOCK & VAULT HANDLE WITH THREE POINT CATCH FOR DOOR OVER 48" HIGH.	K-80429	AS REQ'D	AS REQ'D

·SHOW WINDOW LIGHTING CONTROL PANELBOARD·

DRAWN BY
ROWE

DATE
3-2-51
REV-9-16-58 M.D.
REV. 11. 9-55. F.K.K.

J. C. PENNEY C.O. INC.

·REAL ESTATE DEPARTMENT·
·CONSTRUCTION DIVISION·
330 W. 34TH. ST
NEW YORK CITY

31-4